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OM protein - protein search, using sw model

Run on: March 31, 2005, 02:35:38 ; Search time 124.5 Seconds
(without alignments)
68.343 Million cell updates/sec

Title: US-10-816-720-1

Perfect score: 127

Sequence: KAGIQECQHQFRGRNNCTTVS 22

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_16peco4:*

- 1: GeneseqP1980s:*
- 2: GeneseqP1990s:*
- 3: GeneseqP2000s:*
- 4: GeneseqP2001s:*
- 5: GeneseqP2002s:*
- 6: GeneseqP2003ab:*
- 7: GeneseqP2003bs:*
- 8: GeneseqP2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution:

ALIGNMENTS

RESULT 1
ID AAY7596 standard; protein; 352 AA.
AC AAY7596;
XX DT 02-MAR-2000 (first entry)
DE Murine Wnt-3a protein.
XX KW Wnt-1; neuronal growth; differentiation; regeneration;
dorsal neural progenitor cell; neurodegenerative disease;
Parkinson's disease; amyotrophic lateral sclerosis;
diffuse Lewy body disease; cortical-basal ganglionic degeneration;
Hallervorden-Spatz disease; myoclonic epilepsy.
XX KW XX
OS Mus sp.
XX PN WO9957248-A1.
XX PD 11-NOV-1999.
XX PF 30-APR-1998;
XX PR 30-APR-1998;
XX PA (HARD) HARVARD COLLEGE.
PI McMahon AP, Lee SK, Takada S;
XX DR WPI; 2000-062145/05.
N-PDB; AAZ47790.
XX PT Enriched populations of mammalian neural precursor cells, for treating Parkinson's disease.
XX PS Claim 12; Page 5; 57pp; English.

SUMMARIES

Result No.	Score	Query Match Length	DB ID	Description
1	127	100.0	352 3 AAY7596	Aay7596 Murine Wn
2	118	92.9	42 4 AAM17532	Aam17532 Peptide #
3	118	92.9	42 4 ABB36555	Abb16555 Peptide #
4	118	92.9	42 4 AAM30054	Aam30054 Peptide #
5	118	92.9	42 4 ABB31349	Abb31349 Peptide #
6	118	92.9	42 4 ABB21891	Abb21891 Protein #
7	118	92.9	42 4 AAM69719	Aam69719 Human bon
8	118	92.9	42 4 AAM57320	Aam57320 Human bra
9	118	92.9	42 4 ABG51403	Abg51403 Human liv
10	118	92.9	42 4 AAM05204	Aam05204 Peptide #
11	118	92.9	313 5 ABG39339	Abg39339 Human pep
12	118	92.9	313 5 ABG60223	Abg60223 Human Wnt
13	118	92.9	313 7 ADMB0169	AdmB0169 Human NOV
14	118	92.9	352 5 AAU96846	Aau96846 Human Wnt
15	118	92.9	352 5 ABG60221	Abg60221 Human Wnt
16	118	92.9	352 5 ABG60222	Abg60222 Human Wnt
17	118	92.9	352 5 AAU96847	Aau96847 Human NOV
18	118	92.9	352 7 ADJ70241	Adj70241 Human hea
19	118	92.9	352 7 ADMB0165	AdmB0165 Human NOV
20	118	92.9	352 8 ADMB0167	AdmB0167 Human NOV
21	118	92.9	352 8 ADO08164	Ado08164 Human Wnt
22	118	92.9	352 8 ADO22222	Ado22222 Human WNT
23	118	92.9	519 4 ABG23383	Abg23383 Novel hum
24	117	92.1	333 6 ABU55885	Abu55885 Human WNT
25	117	92.1	333 6 AAE34074	AAE34074 WNT3 prot

The present invention describes an enriched population of mammalian

neural precursor cells committed to a cell fate, the cells being

characterised in that they exhibit a stem cell phenotype in the presence

of a Wnt polypeptide but not in the absence of the Wnt polypeptide. The

enriched population of dopaminergic neuron precursor cells can be used in

a method for treating Parkinson's disease. The enriched population of

dorsal neural precursor cells can be used to induce neuronal regeneration

in an adult mammal suffering from neurodegenerative disorder. The

disorder that can be treated is Parkinson's disease, Amyotrophic lateral

sclerosis, diffuse Lewy body disease, cortical-basal ganglionic

CC degeneration, Hallervorden-Spatz disease or myoclonic epilepsy. The
CC present sequence represents the murine Wnt-3a protein

XX Sequence 352 AA;

XX Score 100.0%; Score 127; DB 3; Length 352;
XX Best Local Similarity 100.0%; Pred. No. 1.1e-10;
XX Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX

Qy 1 KAGIQECQHQFRGRRNCTTV 22
| | | | | | | | | | | | | | | |
Db 71 KAGIQECQHQFRGRRNCTTV 92

RESULT 2
AAM17532 AAM17532 standard; protein: 42 AA.

XX ID AAM17532 ;
XX AC AAM17532 ;

XX DT 12-OCT-2001 (first entry)

XX Peptide #3966 encoded by probe for measuring cervical gene expression.
XX Probe; human; microarray; gene expression; cervical epithelial cell;
KW cervical cancer.

XX Homo sapiens.

XX OS Homo sapiens.

XX PN WO200157278-A2.

XX PD 09-AUG-2001.

XX PA (MOLE-) MOLECULAR DYNAMICS INC.

XX PI Penn SG, Hanzel DK, Chen W, Rank DR;

XX PR XX

XX DR WPI; 2001-483447/52.

XX Sequence 352 AA;
XX Score 92.9%; Score 118; DB 4; Length 42;
XX Best Local Similarity 95.2%; Pred. No. 3e-10;
XX Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
XX Gaps 0;

CC The present invention relates to human single exon nucleic acid probes
CC (SENPs; see AAI10068-AAI2859). The present sequence is a peptide encoded
CC by one such probe. The SENPs are derived from human HeLa cells. The SNPs
CC can be used to produce a single exon microarray, which can be used for
CC measuring human gene expression in a sample derived from human cervical
CC epithelial cells. By measuring gene expression, the probes are therefore
CC useful in grading and/or staging of diseases of the cervix, notably
CC cervical cancer. Note: The sequence data for this patent did not form
CC part of the printed specification, but was obtained in electronic format
CC directly from WIPO at ftp.wipo.int/pub/published_pct_sequences

XX Sequence 42 AA;

XX Score 92.9%; Score 118; DB 4; Length 42;

XX Best Local Similarity 95.2%; Pred. No. 3e-10;

XX Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

XX Gaps 0;

Qy 1 KAGIQECQHQFRGRRNCTTV 21
| | | | | | | | | | | | | | | |
Db 9 KAGIQECQHQFRGRRNCTTV 29

RESULT 4

AAM30054 AAM30054 standard; protein: 42 AA.

XX ID AAM30054 ;
XX AC AAM30054 ;

XX DT 17-OCT-2001 (first entry)

Qy 1 KAGIQECQHQFRGRRNCTTV 21
| | | | | | | | | | | | | | | |

XX DE Peptide #4091 encoded by probe for measuring placental gene expression.

XX KW Probe; microarray; human; placenta; antenatal diagnosis;

XX DR Probe; microarray; human; placenta; antenatal diagnosis;

XX DE Peptide #4091 encoded by probe for measuring placental gene expression.

KW genetic disorder.
 XX
 OS Homo sapiens.
 XX
 WO200157272-A2.
 XX
 09-AUG-2001.
 PD
 XX
 PP 30-JAN-2001; 2001WO-US000663.
 XX
 PR 04-FEB-2000; 2000US-0180312P.
 PR 26-MAY-2000; 2000US-0207456P.
 PR 30-JUN-2000; 2000US-00608408.
 PR 03-AUG-2000; 2000US-00632356.
 PR 21-SEP-2000; 2000US-0234587P.
 PR 27-SEP-2000; 2000US-0236359P.
 PR 04-OCT-2000; 2000GB-00024263.
 (MOLE-) MOLECULAR DYNAMICS INC.
 PI Penn SG, Hanzel DK, Chen W, Rank DR;
 XX
 WPI; 2001-488897/53.
 XX
 Human genome-derived single exon nucleic acid probes useful for analyzing gene expression in human placenta.
 XX
 Claim 27; SEQ ID NO 30323; 654pp; English.
 XX
 CC The present invention relates to single exon nucleic acid probes (SENPs; see AAI31315-AAI5746). The present sequence is a peptide encoded by one such probe. The probes are useful for producing a microarray for predicting, measuring and displaying gene expression in samples derived from human placenta. The probes are useful for antenatal diagnosis of human genetic disorders.
 XX
 SQ Sequence 42 AA;
 Query Match 92.9%; Score 118; DB 4; Length 42;
 Best Local Similarity 95.2%; Pred. No. 3e-10;
 Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Qy 1 KAGIQCQHQFRGRWNCTV 21
 Db 9 KIGIQCQHQFRGRWNCTV 29
 XX
 RESULT 5
 ABB11349
 ID ABB11349 standard; peptide; 42 AA.
 XX
 AC ABB11349;
 XX
 DT 01-FEB-2002 (first entry)
 XX
 DE Peptide #4000 encoded by breast cell single exon nucleic acid probe.
 XX
 KW Human; microarray; single exon probe; gene expression; breast; disease; cancer.
 XX
 OS Homo sapiens.
 PN WO200157271-A2.
 XX
 PD 09-AUG-2001.
 XX
 30-JAN-2001; 2001WO-US000662.
 XX
 PR 04-FEB-2000; 2000US-0180312P.
 PR 26-MAY-2000; 2000US-0207456P.
 PR 30-JUN-2000; 2000US-0207456P.
 PR 03-AUG-2000; 2000US-00608408.
 PR 21-SEP-2000; 2000US-0234687P.
 PR 27-SEP-2000; 2000US-0234687P.
 PR 27-SEP-2000; 2000US-0236359P.
 PR 04-OCT-2000; 2000GB-00024263.
 XX
 PA (MOLE-) MOLECULAR DYNAMICS INC.
 PI Penn SG, Hanzel DK, Chen W, Rank DR;
 XX
 DR WPI; 2001-496333/54.
 XX
 PT New spatially-addressable set of single exon nucleic acid probes, useful for measuring gene expression in sample derived from human breast, comprising number of single exon nucleic acid probes.
 XX
 Claim 27; SEQ ID NO 14317; 327pp + Sequence Listing; English.
 XX
 CC The invention relates to a spatially-addressable set of single exon nucleic acid probes for measuring gene expression in a sample derived from human breast and BT 474 cells. The method involves contacting the probes with a collection of detectably labelled nucleic acids derived from mRNA of human breast, and then measuring the label bound to each probe of the microarray. The probes are useful for verifying the expression of regions of genomic DNA predicted to encode proteins. They are useful for gene discovery, and for determining predisposition and/or prognosis of breast disease. Gene expression analysis is useful for assessing the toxicity of chemical agents on cells. The microarray of this invention presents a far greater diversity of probes for measuring gene expression, with far less bias than expressed sequence tag microarrays. The method is suitable for rapid production of functional information from genomic sequence. The present sequence is a peptide encoded by a single exon nucleic acid probe of the invention. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
 XX
 SQ Sequence 42 AA;
 Query Match 92.9%; Score 118; DB 4; Length 42;
 Best Local Similarity 95.2%; Pred. No. 3e-10;
 Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 Qy 1 KAGIQCQHQFRGRWNCTV 21
 Db 9 KIGIQCQHQFRGRWNCTV 29
 XX
 RESULT 6
 ABB21891
 ID ABB21891 standard; protein; 42 AA.
 XX
 AC ABB21891;
 XX
 DT 23-JAN-2002 (first entry)
 XX
 DE Protein #3890 encoded by probe for measuring heart cell gene expression.
 XX
 KW Human; gene expression; heart; microarray; vascular system; cardiovascular disease; hypertension; cardiac arrhythmia; congenital heart disease.
 KW Homo sapiens.
 XX
 PN WO200157274-A2.
 XX
 PD 09-AUG-2001.
 XX
 30-JAN-2001; 2001WO-US000666.
 XX
 PR 04-FEB-2000; 2000US-0180312P.
 PR 26-MAY-2000; 2000US-0207456P.
 PR 30-JUN-2000; 2000US-0207456P.
 PR 03-AUG-2000; 2000US-00632366.
 PR 21-SEP-2000; 2000US-0234687P.
 PR 27-SEP-2000; 2000US-0236359P.

Best Local Similarity 95.2%; Pred. No. 3e-10; Mismatches 1; Indels 0; Gaps 0; RESULT 10
 Matches 20; Conservative 0; AAM05204 standard; peptide; 42 AA.
 Qy 1 KAGIQEQQHOFGRGRNCTV 21
 Db 9 KIGIQBCQHQFRGRNCTV 29

RESULT 9
 ABG51403 ID ABG51403 standard; peptide; 42 AA.
 XX AC ABG51403;
 XX DT 25-FEB-2003 (first entry)
 XX Human liver peptide, SEQ ID No 30051.
 KW Human; liver; cirrhosis; hyperlipoproteinaemia; hyperlipidaemia;
 KW hypercholesterolaemia; coronary heart disease.
 XX OS Homo sapiens.
 XX DE WO200157273-A2.
 XX PN WO200157273-A2.
 PD 09-AUG-2001.
 XX PP 30-JAN-2001; 2001WO-US000664.
 PR 04-FEB-2000; 2000US-0180312P.
 PR 26-MAY-2000; 2000US-0207456P.
 PR 30-JUN-2000; 2000US-00608408.
 PR 03-AUG-2000; 2000US-00632366.
 PR 21-SEP-2000; 2000US-0234687P.
 PR 27-SEP-2000; 2000US-0236359P.
 PR 04-OCT-2000; 2000GB-00024263.

XX PA (MOLE-) MOLECULAR DYNAMICS INC.
 PI Penn SG, Hanzel DK, Chen W, Rank DR;
 XX DR; 2001-476286/51.
 XX PT Novel single exon nucleic acid probe used to measuring gene expression in
 a human breast.
 XX PS Claim 27; SEQ ID NO 13944; 322pp; English.
 DR; 2001-488958/53.

XX PT Human genome-derived single exon nucleic acid probes useful for analyzing
 gene expression in human adult liver.
 XX PS Claim 27; SEQ ID NO 30051; 658pp; English.
 XX The invention relates to a single exon nucleic acid probe (SENPs) (I) for
 measuring human gene expression in a sample derived from human adult
 liver, comprising one of 13109 defined nucleotide sequences given in the
 specification (or complements/ fragments). The probe hybridises at high
 stringency to a nucleic acid molecule expressed in the human adult liver.
 (I) may be used for predicting, measuring and displaying gene expression
 in samples derived from human adult liver. The genes identified may be
 involved in genetic liver diseases such as cirrhosis,
 hyperlipoproteinaemia, hyperlipidemia and hypercholesterolaemia which is
 associated with coronary heart disease. ABG7348 ABGS930 represent human
 liver single exon encoded peptides of the invention. Note: The sequence
 information for this patent does not appear in the printed specification
 but was obtained in electronic format directly from WIPO at
 ftp.wipo.int/pub/published_pct_sequences

XX SQ Sequence 42 AA;
 Query Match 92.9%; Score 118; DB 4; Length 42;
 Best Local Similarity 95.2%; Pred. No. 3e-10; Mismatches 1; Indels 0; Gaps 0; RESULT 11
 Matches 20; Conservative 0; AAM05204 standard; peptide; 42 AA.
 Qy 1 KAGIQEQQHOFGRGRNCTV 21
 Db 9 KIGIQBCQHQFRGRNCTV 29

XX AC ABG39339;
 XX DT 19-AUG-2002 (first entry)

XX Peptide #3886 encoded by probe for measuring breast gene expression.
 XX KW Probe; human; breast disease; breast cancer; development disorder;
 KW inflammatory disease; proliferative breast disease; non-carcinoma tumour.
 XX OS Homo sapiens.
 XX DE WO200157270-A2.
 XX PN WO200157270-A2.
 PD 09-AUG-2001.
 XX PP 29-JAN-2001; 2001WO-US000661.
 PR 04-FEB-2000; 2000US-0180312P.
 PR 26-MAY-2000; 2000US-0207456P.
 PR 30-JUN-2000; 2000US-00608408.
 PR 03-AUG-2000; 2000US-00632366.
 PR 21-SEP-2000; 2000US-0234687P.
 PR 27-SEP-2000; 2000US-0236359P.
 PR 04-OCT-2000; 2000GB-00024263.

XX PA (MOLE-) MOLECULAR DYNAMICS INC.
 PI Penn SG, Hanzel DK, Chen W, Rank DR;
 XX DR; 2001-476286/51.
 XX PT Novel single exon nucleic acid probe used to measuring gene expression in
 a human breast.
 XX PS Claim 27; SEQ ID NO 13944; 322pp; English.
 DR; 2001-488958/53.

XX CC The present invention relates to novel single exon nucleic acid probes
 (see AAI0010-AAI0067). The present sequence is a peptide encoded by one
 such probe. The probes are useful for measuring human gene expression in a
 human breast sample, where the probe hybridises at high stringency to a
 nucleic acid expressed in the human breast. The probes are useful for
 predicting, diagnosing, grading, staging, monitoring and prognosis
 diseases of the human breast, particularly those diseases with polygenic
 aetiology. The diseases include: breast cancer, disorders of development,
 inflammatory diseases of the breast, fibrotic changes, proliferative
 breast disease and non-carcinoma tumours. Note: The sequence data for
 this patent did not form part of the printed specification, but was
 obtained in electronic format directly from WIPO at
 ftp.wipo.int/pub/published_pct_sequences.
 XX SQ Sequence 42 AA;

Query Match 92.9%; Score 118; DB 4; Length 42;
 Best Local Similarity 95.2%; Pred. No. 3e-10; Mismatches 0; Indels 1; Gaps 0; RESULT 11
 Matches 20; Conservative 0; AAM05204 standard; peptide; 42 AA.
 Qy 1 KAGIQEQQHOFGRGRNCTV 21
 Db 9 KIGIQBCQHQFRGRNCTV 29

XX Human peptide encoded by genome-derived single exon probe SEQ ID 29004.
 DE XX single exon probe; asthma; lung cancer; COPD; ILD;
 CC XX chronic obstructive pulmonary disease; interstitial lung disease;
 CC familial idiopathic pulmonary fibrosis; neurofibromatosis;
 CC tuberous sclerosis; Gaucher's disease;
 CC Niemann-Pick disease;
 CC Hurler's disease; mucopolysaccharidosis; pulmonary haemosiderosis;
 CC pulmonary histiocytosis; lymphangioleiomyomatosis; Kartagener syndrome;
 CC pulmonary alveolar proteinosis; fibrocytic pulmonary dysplasia;
 CC primary ciliary dyskinesia; pulmonary hypertension;
 CC hyaline membrane disease.
 XX OS Homo sapiens.
 XX WO200186003-A2.
 XX 15-NOV-2001.
 XX PD 30-JAN-2001; 2001WO-US000665.

XX PF 04-FEB-2000; 2000US-0180312P.
 PR 26-MAY-2000; 2000US-0207456P.
 PR 30-JUN-2000; 2000US-00608408.
 PR 03-AUG-2000; 2000US-0062326.
 PR 21-SEP-2000; 2000US-0234637P.
 PR 27-SEP-2000; 2000US-0236559P.
 PR 04-OCT-2000; 2000GB-00024263.

XX PA (MOLE-) MOLECULAR DYNAMICS INC.
 XX PI Penn SG, Hanzel DK, Chen W, Rank DR;
 XX DR WPI; 2002-114183/15.
 XX PT Spatially-addressable set of single exon nucleic acid probes, used to
 PT measure gene expression in human lung samples.
 XX PS Claim 27: SEQ ID NO 29004; 634pp; English.

XX The invention relates to a spatially-addressable set of single exon
 CC nucleic acid probes for measuring gene expression in a sample derived
 CC from human lung comprising single exon nucleic acid probes having one of
 CC 12614 nucleic acid sequences mentioned in the specification, or their
 CC complements or the 12387 open reading frames derived from the 12614
 CC probes. Also included are a microarray comprising the novel set of probes
 CC ; the novel set of probes which hybridise at high stringency to a nucleic
 CC acid expressed in the human lung; measuring gene expression in a sample
 CC derived from human lung, comprising (a) contacting the array with a
 CC collection of detectably labeled nucleic acids derived from human lung
 CC mRNA, and (b) measuring the label detectably bound to each probe of the
 CC array; identifying exons in a eukaryotic genome, comprising (a)
 CC algorithmically predicting least one exon from genomic sequences of
 CC the eukaryote; and (b) detecting specific hybridisation of detectably
 CC labeled nucleic acids from eukaryote lung mRNA, to a single exon probe,
 CC having a fragment identical to the predicted exon, the probe is included
 CC in the above mentioned microarray; assigning exons to a single gene,
 CC comprising (a) identifying exons from genomic sequence by the method
 CC above and (b) measuring the expression of each of the exons in several
 CC tissues and/or cell types using hybridisation to a single exon
 CC microarray having a probe with the exon, where a common pattern of
 CC expression of the exons in the tissues and/or cell types indicates that
 CC the exons should be assigned to a single gene, a peptide comprising one
 CC of 12011 sequences, mentioned in the specification, or encoded by the
 CC probes/open reading frames (ORF). The probes are used for gene expression
 CC analysis, and for identifying exons in a gene, particularly using human
 CC lung derived mRNA and for the study of lung diseases such as asthma, lung
 CC cancer, chronic obstructive pulmonary disease (COPD), interstitial lung
 CC disease (ILD), familial idiopathic pulmonary fibrosis, neurofibromatosis,
 CC tuberous sclerosis, Gaucher's disease, Niemann-Pick disease, Hermansky-
 CC Putlik syndrome, sarcoidosis, pulmonary haemosiderosis, pulmonary
 CC histiocytosis, lymphangioleiomyomatosis, pulmonary alveolar proteinosis,
 CC Kartagener syndrome, fibrocytic pulmonary dysplasia, primary ciliary

CC dyskinesia, pulmonary hypertension and hyaline membrane disease. The
 CC present sequence is a peptide/protein encoded by a single exon probe of
 CC the invention. Note: The sequence data for this patent did not form part
 CC of the printed specification, but was obtained in electronic format
 CC directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
 XX
 SQ Sequence 42 AA;

Query Match 92.9%; Score 118; DB 5; Length 42;
 Best Local Similarity 95.2%; Pred. No. 3e-10; 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 KAGIQBCQHOFRGRWRWNCITV 21
 Db 9 KIGIQBCQHOFRGRWRWNCITV 29

RESULT 12
 ABG60223
 ID ABG60223 standard; protein; 313 AA.

XX AC ABG60223;
 XX DT 30-JUL-2002 (first entry)
 XX DB Human Wnt-like protein NOV1c.
 XX KW Human; NOVX; developmental disorder; endocrine disorder;
 KW vascular disorder; infectious disease; anorexia; cancer; stroke;
 KW neurodegenerative disorder; Alzheimer's disease; acute brain injury;
 KW central nervous system disorder; depression; lung disorder;
 KW reproductive disorder; tissue disorder; thrombocytopaenia; migraine;
 KW angiogenesis; asthma; X-linked severe combined immunodeficiency;
 KW inflammation; autoimmune disorder; immune disorder; blood disorder;
 KW haemopoietic disorder; gastrointestinal disease; respiratory disorder;
 KW hepatitis; fertility; hypertension; arteriosclerosis; ischaemia;
 KW rheumatoid arthritis; Grave's disease; wound healing.
 XX OS Homo sapiens.

XX WO200224733-A2.
 XX PD 28-MAR-2002.

XX PP 17-SEP-2001; 2001WO-US029115.
 XX PR 15-SEP-2000; 2000US-0232675P.
 PR 15-SEP-2000; 2000US-0232676P.
 PR 2000US-0232679P.
 PR 18-SEP-2000; 2000US-0233182P.
 PR 18-SEP-2000; 2000US-0233402P.
 PR 19-SEP-2000; 2000US-0233521P.
 PR 19-SEP-2000; 2000US-0233522P.
 PR 19-SEP-2000; 2000US-0233801P.
 PR 20-SEP-2000; 2000US-02338160P.
 PR 06-OCT-2000; 2000US-0238398P.
 PR 13-OCT-2000; 2000US-0240849P.
 PR 13-OCT-2000; 2000US-024098P.
 PR 11-JAN-2001; 2001US-026073P.
 PR 26-JAN-2001; 2001US-0264274P.
 PR 09-MAR-2001; 2001US-0274862P.

XX (CURA-) CURAGEN CORP.
 XX PI Mishra VS, Syrotek KA, Taupier RJ, Vernet CAM, Colman SD;
 PI Gorman L, Tcherneyev VT, Malvankar UM, Shenoy S, Tcherneyev VT;
 PI Padigaru M, Paturajan M, Burgess CB, Smithson G, Millet I;
 PI Peyman JA, Stone D, Gunther E, Ellerman K;
 XX DR WPI; 2002-283102/41.
 DR N-PSDB; ABK71911.
 XX PT New cytoplasmic, nuclear, membrane bound and secreted NOVX polypeptides,

PT useful for treating cancers and tumors, lung disorders, hematopoietic
 PT disorders, autoimmune diseases and immune disorders.

XX Claim 1 ; Page 13; 210pp; English.

XX The invention relates to an isolated NOVX polypeptide selected from NOV1, NOV1b, NOV2a, NOV2b, NOV2c, NOV3, NOV3b, NOV4a, NOV4b, NOV5a or NOV5b or NOV5 Novopeptides, their mature form or variant. Also included are a nucleic acid encoding a NOVX protein or variant; a vector comprising the nucleic acid, a cell comprising the vector; an anti-NOVX antibody; and identity agents that modulate the expression or activity of NOVX. NOVX, the nucleic acid, antibody and modulators are useful in the diagnosis, treatment or prevention of developmental disorders, endocrine disorders, vascular disorders, infectious disease, anoxia, Cancer, neurodegenerative disorders (e.g. Alzheimer's disease, Parkinson's disease, Huntington's disease, multiple sclerosis and amyotrophic lateral sclerosis), acute brain injury (e.g. stroke, head injury and cerebral palsy), central nervous system disorders (e.g. depression, epilepsy and schizophrenia), lung disorders, reproductive disorders, disorders affecting carbohydrate metabolism (e.g. galactosemia and hereditary fructose intolerance), tissue disorders (e.g. Wiskott-Aldrich syndrome, thrombocytopaenia, night blindness and Pick's disease), disorders linked to abnormal angiogenesis, asthma, azoospermia, learning disabilities, facial dysmorphism, autoimmune encephalomyelitis, X-linked severe combined immunodeficiency, seizures, migraines, inflammation, autoimmune disorders, disorders affecting sleep, appetite, thermoregulation, pain, perception, hormone secretion and sexual behaviour, immune disorders, haematopoietic disorders or other disorders related to cell signal processing and metabolic pathway modulation. Gastrointestinal diseases, respiratory disorders, blood disorders, hepatitis, trauma, regeneration, viral, bacterial or parasitic infections, hyper- or hypothyroidism, endometriosis, fertility, hypertension, arteriosclerosis, ischaemia, haemolytic anaemia, Werner syndrome, rheumatoid arthritis, Grave's disease, wound healing, X-linked mental retardation, psychotic and neurological disorders and neuronal degeneration. The present sequence represents a NOVX protein.

XX Sequence 313 AA;

SQ Query Match 92.9%; Score 118; DB 5; Length 313;
 Best Local Similarity 95.2%; Pred. No. 2.e-09;
 Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 KAGIQBCQHQPRGRWNCTV 21
 Db 71 KIGIQBCQHQFRGRWNCTV 91

RESULT 13
 ID ADM80169 standard; protein: 313 AA.

XX ADM80169;

XX DT 03-JUN-2004 (first entry)

XX DE Human NOVX protein Novic.

XX Gene therapy; human; NOVX; neurodegenerative disease; Alzheimer's disease; Parkinson's disease; multiple sclerosis; acute brain injury; stroke; cerebral palsy; central nervous system dysfunction; epilepsy; depression; schizophrenia; autoimmune disorder; inflammation; aging; cancer.

XX Homo sapiens.

XX US2003170838-A1.

XX PD 11-SEP-2003.

XX PP 17-SEP-2001; 2001US-00954342.

XX PR 15-SEP-2000; 2000US-0232676P.

XX PR 15-SEP-2000; 2000US-0232679P.

XX PR 18-SEP-2000; 2000US-0231382P.

XX PR 18-SEP-2000; 2000US-0231402P.

XX PR 19-SEP-2000; 2000US-0233521P.

XX PR 19-SEP-2000; 2000US-0233522P.

XX PR 19-SEP-2000; 2000US-0233801P.

XX PR 06-OCT-2000; 2000US-02336160P.

XX PR 13-OCT-2000; 2000US-0234998P.

XX PR 08-JAN-2001; 2001US-0260284P.

XX PR 11-JAN-2001; 2001US-0260973P.

XX PR 29-JAN-2001; 2001US-0264794P.

XX PR 09-MAR-2001; 2001US-0274862P.

XX PR 15-SEP-2000; 2000US-0232676P.

XX PR 15-SEP-2000; 2000US-0232679P.

XX PR 18-SEP-2000; 2000US-0231382P.

XX PR 18-SEP-2000; 2000US-0231402P.

XX PR 19-SEP-2000; 2000US-0233521P.

XX PR 19-SEP-2000; 2000US-0233522P.

XX PR 19-SEP-2000; 2000US-0233801P.

XX PR 06-OCT-2000; 2000US-02336160P.

XX PR 13-OCT-2000; 2000US-0234998P.

XX PR 08-JAN-2001; 2001US-0260284P.

XX PR 11-JAN-2001; 2001US-0260973P.

XX PR 29-JAN-2001; 2001US-0264794P.

XX PR 09-MAR-2001; 2001US-0274862P.

XX PA (MISHRA V S.) MISHRA V S.

XX PA (SPYTEK K A.) SPYTEK K A.

XX PA (TAUPIER R J.) TAUPIER R J.

XX PA (VERN) VERNET C A.

XX PA (COLMAN S D.) COLMAN S D.

XX PA (GORMAN L.) GORMAN L.

XX PA (TCHEBNEV V T.) TCHEBNEV V T.

XX PA (MALYANKAR U M.) MALYANKAR U M.

XX PA (SHENOY S.) SHENOY S.

XX PA (PADIGARI M.) PADIGARI M.

XX PA (GERLACH V L.) GERLACH V L.

XX PA (MACDOUGALL J R.) MACDOUGALL J R.

XX PA (SMITHSON G.) SMITHSON G.

XX PA (MILLER I.) MILLER I.

XX PA (PEYMAN J.) PEYMAN J.

XX PA (STONE D.) STONE D.

XX PA (GUNTHER E.) GUNTHER E.

XX PA (ELIE R.) ELIE R.

XX PA (LI L.) LI L.

XX PA (RASTELL L.) RASTELL L.

XX PA (ZERHUSEN B.) ZERHUSEN B.

XX PA (ADM80168.) ADM80168.

XX PI Mishra VS., Spytek KA, Taupier RJ, Vernet CA, Colman SD, Gorman L.; Tchernev VT, Malvankar UM, Shenoy S., Padigaru M., Gerlach VL; Macdougall JR, Smithson G., Millet I., Peyman J., Stone D., Gunther E.; Bliemann K., Li L., Rastelli L., zerhusen B.;

XX PI WPI; 2003-898268/82.

XX DR N-PSB; ADM80168.

XX PS Claim 1; Page 8; 128pp; English.

XX PT New NOVX polypeptide, useful for preparing a composition for treating or preventing a NOVX-associated disorder, e.g., neurodegenerative or autoimmune disorders or cancer.

XX XX

CC The invention new isolated NOVX polypeptides and nucleic acids. The

CC polypeptide, nucleic acid or antibody is useful for preparing a

CC composition for treating or preventing a NOVX-associated disorder, such

CC as neurodegenerative disease (e.g. Alzheimer's disease, Parkinson's

CC disease, multiple sclerosis, acute brain injury (e.g. stroke, cerebral

CC palsy), central nervous system dysfunctions (e.g. epilepsy, depression,

CC schizophrenia) or autoimmune disorders, inflammation, aging or cancer.

CC The Present sequence represents a human NOVX polypeptide of the

CC invention.

CC Sequence 313 AA;

CC Query Match 92.9%; Score 118; DB 7; Length 313;

CC Best Local Similarity 95.2%; Pred. No. 2.2e-09;

CC Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

CC Sq 1 KAGIQBCQHQPRGRWNCTV 21

CC 71 KIGIQBCQHQFRGRWNCTV 91

CC

CC 1 KAGIQBCQHQFRGRWNCTV 21

CC 71 KIGIQBCQHQFRGRWNCTV 91

CC

CC RESULT 14

AAU96846	ID	AAU96846	standard; protein; 352 AA.
XX	XX	XX	Human Wnt-like protein NOVla variant.
AC	XX	XX	KW Human; NOVX; developmental disorder; endocrine disorder; stroke; KW nervous disorder; infectious disease; anorexia; cancer; acute brain injury; KW neurodegenerative disorder; Alzheimer's disease; acute brain injury; KW central nervous system disorder; depression; lung disorder; KW reproductive disorder; asthma; KW tissue disorder; thrombocytopenia; migraine; angiogenesis; KW X-linked severe combined immunodeficiency; KW inflammation; autoimmune disorder; immune disorder; blood disorder; KW haematopoietic disorder; gastrointestinal disease; respiratory disorder; KW hepatitis; fertility; hypertension; arteriosclerosis; ischaemia; KW rheumatoid arthritis; Grave's disease; wound healing
DT	DT	30-JUL-2002	(first entry)
XX	XX	XX	Homo sapiens.
OS	OS	XX	FH Key Location/Qualifiers
		XX	Misc-difference 16 FT /note= "Wild-type Ala substituted by Thr"
		XX	Misc-difference 224 FT /note= "Wild-type Phe substituted by Leu"
		XX	Misc-difference 287 FT /note= "Wild-type Thr substituted by Ala"
		XX	Misc-difference 294 FT /note= "Wild-type Asp substituted by Gly"
XX	XX	XX	WO200224733-A2.
XX	XX	XX	PD 28-MAR-2002.
XX	XX	XX	PP 17-SEP-2001; 2001WO-US029115.
XX	XX	XX	PR 15-SEP-2000; 2000US-0232675P.
PR	PR	PR	15-SEP-2000; 2000US-0232676P.
PR	PR	PR	15-SEP-2000; 2000US-0232679P.
PR	PR	PR	18-SEP-2000; 2000US-0233382P.
PR	PR	PR	18-SEP-2000; 2000US-0233402P.
PR	PR	PR	19-SEP-2000; 2000US-0233521P.
PR	PR	PR	19-SEP-2000; 2000US-0233522P.
PR	PR	PR	19-SEP-2000; 2000US-0233801P.
PR	PR	PR	20-SEP-2000; 2000US-0233960P.
PR	PR	PR	06-OCT-2000; 2000US-023398P.
PR	PR	PR	13-OCT-2000; 2000US-024284P.
PR	PR	PR	13-OCT-2000; 2000US-024498P.
PR	PR	PR	11-JAN-2001; 2001US-026073P.
PR	PR	PR	26-JAN-2001; 2001US-0262274P.
PR	PR	PR	09-MAR-2001; 2001US-0274862P.
XX	XX	XX	(CURA-) CURAGEN CORP.
PA	PA	PA	Mishra VS, Syptek KA, Taupier RJ, Vernet CAM, Colman SD; Gorham L, Tchernev VT, Malyankar UM, Shenoy S, Tchernev VT;
PI	PI	PI	Padiagar M, Patturajan M, Burgess CE, Smithson G, Millet I; Peyerim JA, Stone D, Gunther E, Ellerman K;
PI	PI	PI	WPI; 2002-383182/41.
XX	XX	XX	New cytoplasmic, nuclear, membrane bound and secreted NOVX polypeptides, useful for treating cancers and tumors, lung disorders, hematopoietic disorders, autoimmune diseases and immune disorders.
XX	XX	XX	Example 2; Page: 210pp; English.
CC	CC	CC	The invention relates to an isolated NOVX polypeptide selected from NOVla, NOVb, Noviac, NOV2a, NOV2b, NOV2c, NOV3a, NOV3b, NOV4a, NOV4b, NOV5a, NOV5b or NOV6 polypeptides, their nature form or variant. Also included are a nucleic acid encoding a NOVX protein or variant, a

PR 18-SEP-2000; 2000US-0233182P.
 PR 18-SEP-2000; 2000US-0233102P.
 PR 19-SEP-2000; 2000US-0233521P.
 PR 19-SEP-2000; 2000US-0233522P.
 PR 19-SEP-2000; 2000US-0233801P.
 PR 20-SEP-2000; 2000US-0233960P.
 PR 06-OCT-2000; 2000US-0238398P.
 PR 13-OCT-2000; 2000US-0240384P.
 PR 13-OCT-2000; 2000US-0240498P.
 PR 11-JAN-2001; 2001US-0263973P.
 PR 26-JAN-2001; 2001US-0261274P.
 PR 09-MAR-2001; 2001US-0274862P.
 XX PA (CURA-) CURAGEN CORP.

XX PI Mishra VS, Syptek KA, Taupier RJ, Vernet CAM, Colman SD,
 PI Gorman L, Tchernev VT, Malvankar UM, Shenoy S, Tchernev VT;
 PI Padigaru M, Patturajan M, Burgess CE, Smithson G, Millet I;
 PI Peyman JA, Stone D, Guntheer E, Elleerman K;
 XX DR 2002-383182/41.
 XX N-PSDB; ABK71909.

XX PT New cytoplasmic, nuclear, membrane bound and secreted NOVX polypeptides,
 PT useful for treating cancers and tumors, lung disorders, hematopoietic
 PT disorders, autoimmune diseases and immune disorders.
 XX PS Claim 1 : Page 11; 210pp; English.

XX CC The invention relates to an isolated NOVX polypeptide selected from NOVIA, NOVib, NOViac, NOV2a, NOV2b, NOV2c, NOV3a, NOV3b, NOV4a, NOV4b, NOV5a, NOV5b or NOV5c NOV peptides, their mature form or variant. Also included are a nucleic acid encoding a NOV protein or variant; a vector comprising the nucleic acid; a cell comprising the vector; an anti-NOV antibody; and identifying agents that modulate the expression or activity of NOVX. NOVX, the nucleic acid, antibody and modulators are useful in the diagnosis, treatment or prevention of developmental disorders, endocrine disorders, vascular disorders, infectious disease, anorexia, cancer, neurodegenerative disorders (e.g. Alzheimer's disease, Parkinson's disease, Huntington's disease, multiple sclerosis and amyotrophic lateral sclerosis), acute brain injury (e.g. stroke, head injury and cerebral palsy), central nervous system disorders (e.g. depression, epilepsy and schizophrenia), lung disorders, reproductive disorders, disorders affecting carbohydrate metabolism (e.g. galactosemia and hereditary fructose intolerance), tissue disorders (e.g. Wiskott-aldrich syndrome, thrombocytopenia, night blindness and pick's disease), disorders linked to abnormal angiogenesis, asthma, azoospermia, learning disabilities, facial dysmorphism, autoimmune encephalomyelitis, X-linked severe combined immunodeficiency, seizures, migraines, inflammation, autoimmune disorders, disorders affecting sleep, appetite, thermoregulation, pain, perception, hormone secretion and sexual behaviour, immune disorders, haematopoietic disorders or other disorders related to cell signal processing and metabolic pathway modulation, gastrointestinal diseases, respiratory disorders, blood disorders, hepatitis, trauma, regeneration, viral, bacterial or parasitic infections, hyper- or hypo-thyroidism, endometriosis, fertility, hypertension, arteriosclerosis, ischaemia, haemolytic anaemia, Werner syndrome, rheumatoid arthritis, Grave's disease, wound healing, X-linked mental retardation, psychotic and neurological disorders and neuronal degeneration. The present sequence represents a NOVX protein sequence 352 AA;

SQ Query Match 92.9%; Score 118; DB 5; Length 352;
 Best Local Similarity 95.2%; Pred. No. 2.5e-09;
 Matches 20; Conservative 0; Mismatches -1; Indels 0; Gaps 0;

Qy 1 KAGIGECQHQFRGRWNCTTV 21
 Db 71 KIGIQECQHQFRGRWNCTTV 91

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Scoring table:	BLOSUM62	Transforming protein - African clawed frog				
Gapopen:	10.0	Transforming protein - African clawed frog				
Gapext:	0.5	Transforming protein - African clawed frog				
Searched:	283416 seqs., 96216763 residues	Transforming protein - African clawed frog				
Total number of hits satisfying chosen parameters:	283416	Transforming protein - African clawed frog				
Minimum DB seq length:	0	Transforming protein - African clawed frog				
Maximum DB seq length:	2000000000	Transforming protein - African clawed frog				
Post-processing:	Minimum Match 0%	Transforming protein - African clawed frog				
	Maximum Match 100%	Transforming protein - African clawed frog				
Database :	PIR 79;*	Transforming protein - African clawed frog				
	1: Piri1;*	Transforming protein - African clawed frog				
	2: Piri2;*	Transforming protein - African clawed frog				
	3: Piri3;*	Transforming protein - African clawed frog				
	4: Piri4;*	Transforming protein - African clawed frog				
Result No.	Score	Transforming protein - African clawed frog				
1	127	100.0	352	2	A39532	Transforming protein - African clawed frog
2	119	93.7	352	2	A38828	Transforming protein - African clawed frog
3	117	92.1	333	2	A47533	Transforming protein - African clawed frog
4	117	92.1	335	2	A35503	Transforming protein - African clawed frog
5	103	81.1	372	2	B36470	Transforming protein - African clawed frog
6	100	78.7	360	2	S34173	Transforming protein - African clawed frog
7	97	76.4	359	2	A55549	Transforming protein - African clawed frog
8	97	76.4	365	2	A88914	Transforming protein - African clawed frog
9	97	76.4	379	2	D36470	Transforming protein - African clawed frog
10	94	74.0	352	2	S25559	Transforming protein - African clawed frog
11	94	74.0	357	2	B36549	Transforming protein - African clawed frog
12	89	70.1	468	2	A39650	Transforming protein - African clawed frog
13	89	70.1	469	1	TVEFT1	Transforming protein - African clawed frog
14	89	70.1	1004	2	A88821	Transforming protein - African clawed frog
15	88	69.3	349	2	H26470	Transforming protein - African clawed frog
16	87	68.5	372	2	T09612	Transforming protein - African clawed frog
17	86	67.7	442	2	I50110	Transforming protein - African clawed frog
18	86	67.7	351	2	JC2451	Transforming protein - African clawed frog
19	86	67.7	351	2	C36470	Transforming protein - African clawed frog
20	81	63.8	349	2	A9146	Transforming protein - African clawed frog
21	81	63.8	360	2	T26037	Transforming protein - African clawed frog
22	81	63.8	360	2	S31695	Transforming protein - African clawed frog
23	81	63.8	364	2	F26470	Transforming protein - African clawed frog
24	81	63.8	365	2	JC1694	Transforming protein - African clawed frog
25	81	63.8	417	2	JCT693	Transforming protein - African clawed frog
26	81	63.8	417	2	B53392	Transforming protein - African clawed frog
27	79	62.2	134	2	I50729	Transforming protein - African clawed frog
28	78	61.4	360	2	S0834	Transforming protein - African clawed frog
29	78	61.4	360	2	B36470	Transforming protein - African clawed frog

RESULT	3	Best Local Similarity 81.0%; Pred. No. 5.3e-08; Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;
A47536		gene WNT3 protein - human
C;Species: Homo sapiens (man)		
C;Accession: A47536		C;Sequence_revision: 18-Nov-1994 #text_change 09-Jul-2004
C;Date: 07-Apr-1994		
R;Roelink, H.; Wang, J.; Black, D.M.; Solomon, E.; Nusse, R.		
Gennetics 17, 790-792, 1993		
A;Title: Molecular cloning and chromosomal localization to 17q21 of the human WNT3 gene.		
A;Reference number: A47536; PMID:8244403		
A;Accession: A47536		
A;Status: preliminary; not compared with conceptual translation		
A;Molecule type: nucleic acid		
A;Residues: 1-33 <ROB>		
A;Cross-references: UNIPROT:P56703		
A;Experimental source: Fetus		
A;Note: Sequence extracted from NCBI backbone (NCBIP:139704)		
C;Superfamily: int-1 transforming protein		
Query Match 92.1%; Score 117; DB 2; Length 333; Best Local Similarity 90.5%; Pred. No. 3.7e-10; Matches 19; Conservative 1; Mismatches 1; Indels 0; Gaps 0;		
Db		
Qy 1 KAGIQECKHQFRGRNCTTV 21		
Db 74 KLGIQECKHQFRGRNCTTI 94		
RESULT	4	
A35503		
Wnt-3 protein - mouse		
C;Species: Mus musculus (house mouse)		
C;Accession: A35503		C;Sequence_revision: 09-Nov-1990 #text_change 09-Jul-2004
C;Date: 09-Nov-1990		
R;Roelink, H.; Lopes da Silva, S.; Nusse, R.		
Proc. Natl. Acad. Sci. U.S.A. 87, 4519-4523, 1990		
A;Title: Wnt-3, gene activated by proviral insertion in mouse mammary tumors, is homologous to the Wnt-1 gene		
A;Reference number: A35503; PMID:90280407; PMID:2162045		
A;Accession: A35503		
A;Status: preliminary		
A;Molecule type: mRNA		
A;Residues: 1-35 <ROB>		
A;Cross-references: UNIPROT:P17553; GB:M32502; PIDN:AAB38109.1; PIDN:g198428; PIDN:9293672		
C;Superfamily: int-1 transforming protein		
Query Match 92.1%; Score 117; DB 2; Length 355; Best Local Similarity 90.5%; Pred. No. 3.9e-10; Matches 19; Conservative 1; Mismatches 1; Indels 0; Gaps 0;		
Db		
Qy 1 KAGIQECKHQFRGRNCTTV 21		
Db 74 KLGIQECKHQFRGRNCTTI 94		
RESULT	5	
E36470		
Wnt-5b protein - mouse		
C;Species: Mus musculus (house mouse)		
C;Accession: E36470		C;Sequence_revision: 19-Apr-1991 #text_change 09-Jul-2004
C;Date: 19-Apr-1991		
R;Gavin, B.J.; McMahon, J.A.; McMahon, A.P.		
Genes Dev. 4, 2319-2322, 1990		
A;Title: Expression of multiple novel Wnt-1/int-1-related genes during fetal and adult mouse development		
A;Reference number: A36470; MUID:91122634; PMID:2279700		
A;Accession: E36470		
A;Status: preliminary		
A;Molecule type: mRNA		
A;Residues: 1-372 <GA>		
A;Cross-references: UNIPROT:Q91XFS; GB:M89799; PIDN:AAA40568.1; PIDN:9202405		
C;Superfamily: int-1 transforming protein		
Query Match 81.1%; Score 103; DB 2; Length 372; Best Local Similarity 81.0%; Pred. No. 5.3e-08; Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;		
Db		
RESULT	6	
S34173		
KAGIQECKHQFRGRNCTTV 21		
90 KTGIRKECKHQFRGRNCTV 110		
Query Match 78.7%; Score 100; DB 2; Length 360; Best Local Similarity 76.2%; Pred. No. 1.5e-07; Matches 16; Conservative 3; Mismatches 2; Indels 0; Gaps 0;		
Db		
Qy 1 KAGIQECKHQFRGRNCTTV 21		
Db 78 KTGIRKECKHQFRGRNCTV 98		
RESULT	7	
A56549		
A;Status: preliminary		
A;Molecule type: mRNA		
A;Residues: 1-35 <BUS>		
A;Cross-references: UNIPROT:Q06442; EMBL:Z14047; PIDN:962426; PIDN:CAA78415.1; PIDN:962427		
C;Superfamily: int-1 transforming protein		
Query Match 76.4%; Score 97; DB 2; Length 359; Best Local Similarity 76.2%; Pred. No. 4.2e-07; Matches 16; Conservative 3; Mismatches 2; Indels 0; Gaps 0;		
Db		
Qy 1 KAGIQECKHQFRGRNCTTV 21		
Db 77 KTGIRKECKHQFRGRNCTV 97		
RESULT	8	
A48914		
A;Status: preliminary		
A;Molecule type: mRNA		
A;Residues: 1-372 <GA>		
A;Cross-references: UNIPROT:Q91XFS; GB:M89799; PIDN:AAA40568.1; PIDN:9202405		
C;Superfamily: int-1 transforming protein		
Query Match 81.1%; Score 103; DB 2; Length 372; Best Local Similarity 81.0%; Pred. No. 5.3e-08; Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;		

C;Accession: A48914 R;Clark, C.C.; Cohen, I.; Eichstetter, I.; Cannizzaro, L.A.; McPherson, J.D.; Wasmuth, J. Genomics 18, 249-260, 1993 A;Title: Molecular cloning of the human proto-oncogene Wnt-5A and mapping of the gene (Wnt-5A) to chromosome 11q13.1 A;Reference number: A48914 ; MUID:94116991 ; PMID:8288227 A;Accession: A48914 A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-365 <GNA> A;Cross-references: UNIPROT:P41221 ; GB:L20861 ; NID:9348917 ; PIDN:AAA16842.1 ; PID:9348918 C;Genetics: A;Gene: GDB:WNT5A A;Cross-references: GDB:141726 ; OMIM:164975 A;Map position: 3p21-3p14 C;Superfamily: int-1 transforming protein	Qy 3 GIQECQHQFRGRWNCTTV 21 Db 61 GAQECQHQFRGRWNCTEV 79
RESULT 11	
B56549 cell-cell signaling molecule Axin1 precursor - axin1 C;Species: Anystoma mexicanum (axin1) C;Date: 21-Jul-1995 #sequence_change 09-Jul-2004	
C;Accession: B56549 ; S25000 R;Busse, U.; Seguin, C. Mech. Dev. 40, 63-72, 1993 A;Title: Isolation of cDNAs for two closely related members of the axin1 Wnt family. Axin1 and Axin2 A;Reference number: A56549 ; MUID:93183769 ; PMID:8443107	
Query Match 76.4%; Score 97; DB 2; Length 365; Best Local Similarity 76.2%; Pred. No. 4.2e-07; Matches 16; Conservative 3; Mismatches 2; Indels 0; Gaps 0;	
Qy 1 KAGIQECQHQFRGRWNCTTV 21 Db 83 KTGIKECQYQFRHRWNCTV 103	
Query Match 74.0%; Score 94; DB 2; Length 357; Best Local Similarity 71.4%; Pred. No. 1.2e-06; Matches 15; Conservative 4; Mismatches 2; Indels 0; Gaps 0;	
Qy 1 KAGIQECQHQFRGRWNCTTV 21 Db 75 KTGIKECQYQFRHRWNCTV 95	
RESULT 12	
A29650 wingless (wg) protein precursor - fruit fly (Drosophila melanogaster) N;Alternate names: int-1 homolog (Dint-1) C;Species: Drosophila melanogaster	
C;Accession: A29650 ; S41157 R;Rajewski, F.; Schuermann, M.; Wagenhaar, B.; Parren, P.; Weigl, D.; Nusse, R. Cell 50, 649-657, 1987 A;Title: The Drosophila homolog of the mouse mammary oncogene int-1 is identical to the wingless gene A;Reference number: A29650 ; MUID:87273528 ; PMID:3111720	
Query Match 76.4%; Score 97; DB 2; Length 379; Best Local Similarity 76.2%; Pred. No. 4.4e-07; Matches 16; Conservative 3; Mismatches 2; Indels 0; Gaps 0;	
Qy 1 KAGIQECQHQFRGRWNCTTV 21 Db 98 KTGIKECQYQFRHRWNCTV 118	
RESULT 13	
S24559 Wnt-2 protein - fruit fly (Drosophila melanogaster) C;Species: Drosophila melanogaster C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 09-Jul-2004	
C;Accession: S24559 A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-352 <NU> A;Cross-references: UNIPROT:P28465 ; EMBL:X64735 ; NID:97904 ; PID:97905 R;Nusse, R. Submitted to the EMBL Data Library, March 1992 A;Reference number: S24559 A;Accession: S24559 A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-352 <NU> A;Cross-references: UNIPROT:P28465 ; EMBL:X64735 ; NID:97904 ; PID:97905 C;Genetics: A;Gene: Wnt-2 A;Cross-references: FlyBase:FBgn0004360 C;Superfamily: int-1 transforming protein	
Query Match 74.0%; Score 94; DB 2; Length 352; Best Local Similarity 78.9%; Pred. No. 1.2e-06; Matches 15; Conservative 1; Mismatches 3; Indels 0; Gaps 0;	
Query Match 70.1%; Score 89; DB 2; Length 468; Best Local Similarity 82.4%; Pred. No. 8.7e-06;	

RESULT 13
 TVFTFI
 transforming protein int-1 - fruit fly (*Drosophila melanogaster*)
 C;Species: *Drosophila melanogaster*
 C;Date: 30-Jun-1991 #sequence_revision 30-Jun-1991 #text_change 16-Feb-1997
 C;Accession: A31337
 R;Uzvoelgyi, E.; Kiss, I.; Pitt, A.; Arsenijevic, S.; Ingvarsson, S.; Udvardy, A.; Hamada, Proc. Natl. Acad. Sci. U.S.A. 85, 3034-3038, 1988
 A;Title: *Drosophila* homolog of the murine *Int-1* protooncogene.
 A;Reference number: A31337; PMID:88203634; PMID:3129722
 A;Molecule type: mRNA
 A;Residues: 1-469 <UZV>
 C;Genetics:
 A;Gene: int-1
 A;Cross-references: FlyBase:FBgn0004009
 C;Superfamily: int-1 transforming protein
 C;Keywords: Glycoprotein; oncogene; transforming protein
 F;49,103,108,415/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match Score 70.1%; DB 1; Length 469;
 Best Local Similarity 82.4%; Pred. No. 8.7e-06;
 Matches 14; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 4 IOECOHOFRGRWNCTT 20
 Db 90 ISBCQHQFRNRRWNCT 106

RESULT 14
 A48821
 Wnt-5 protein - fruit fly (*Drosophila melanogaster*)
 N;Alternate names: intercellular signaling protein Dwt-5
 C;Species: *Drosophila melanogaster*
 C;Date: 01-Dec-1993 #sequence_revision 01-Mar-1996 #text_change 09-Jul-2004
 C;Accession: A48821; S27815
 R;Eisenberg, L.M.; Ingham, P.W.; Brown, A.M.
 Dev. Biol. 154, 73-83, 1992.
 A;Title: Cloning and characterization of a novel *Drosophila* Wnt gene, Dwt-5, a putative
 A;Reference number: A48821; PMID:93050786;
 A;Contents: embryo
 A;Accession: A48821
 A;Status: preliminary; not compared with conceptual translation
 A;Molecule type: mRNA
 A;Residues: 1-1004 <EIS>
 A;Cross-references: UNIPROT:P28466; EMBL:M97450; NID:9158805; PID:9158806
 A;Note: sequence extracted from NCBI backbone (NCBIP:117188)
 C;Genetics:
 A;Gene: Flybase:Wnt5
 A;Cross-references: FlyBase:FBgn0010194

Query Match Score 70.1%; DB 2; Length 1004;
 Best Local Similarity 63.6%; Pred. No. 1.7e-05;
 Matches 14; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

Qy 1 KAGIOECOHOFRGRWNCTVS 22
 Db 577 RAAIQECCQFKNRRWNCTTN 598

RESULT 15
 T09612
 secreted glycoprotein Wnt-13 - human
 C;Species: Homo sapiens (man)
 C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 21-Jul-2000
 C;Accession: T09612

GenCore version 5.1.6
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OM protein - protein search, using SW model

Run on: March 31, 2005, 02:41:24 ; Search time 116.5 Seconds

Title: US-10-816-720-1
Perfect score: 127
Sequence: 1 KAGIECOHQFRGRRNCTTVS 22

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing First 45 summaries

Database : UniProt 03:
1: uniprot_sprot:
2: uniprot_trembl:
* Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match Length	DB ID	Description
1	127	100.0	352	1 WNT3A_MOUSE
2	119	93.7	352	1 WNT3A_XENLA
3	119	93.7	376	2 QPWPWH1
4	118	92.9	352	1 WNT3A_HUMAN
5	118	92.9	365	2 Q6IYD9
6	117	92.1	329	2 Q8BLT2
7	117	92.1	355	1 WNT3_HUMAN
8	114	89.8	355	1 WNT3_MOUSE
9	114	89.8	395	2 QWWS76
10	103	81.1	359	1 WNT3B_MOUSE
11	101	79.5	370	2 QWMS75
12	100	78.7	360	1 WNT3_XENLA
13	100	78.7	360	2 Q6D1I0
14	100	78.7	360	2 QTOM2
15	99	78.0	359	1 WNT3B_HUMAN
16	97	76.4	359	1 WNT3B_AMBME
17	97	76.4	359	1 WNT3A_PLEWA
18	97	76.4	360	2 QBBM17
19	97	76.4	363	1 WNT3_BEAR
20	97	76.4	365	1 WNT3_HUMAN
21	97	76.4	371	1 WNT3B_ORYLA
22	97	76.4	379	1 WNT3A_MOUSE
23	97	76.4	379	1 WNT3A_RAT
24	97	76.4	380	1 WNT3A_XENLA
25	97	76.4	380	2 Q6P278
26	97	76.4	380	2 Q8BMMF9
27	97	76.4	380	2 Q8VCV6
28	97	76.4	381	2 Q6DK41
29	97	76.4	385	2 Q9YQX6
30	95	74.8	317	2 Q7Q0K5
31	94	74.0	352	1 WNT2_DRONE

Scoring table: BLOSUM62	Gapop 10.0 , Gapext 0.5	ALIGNMENTS

RESULT 1	WNT3A_MOUSE	STANDARD;	PRT;	352 AA.
ID	P27467;			
AC	P27467;			
DT	01-APR-1992	(Rel. 23, Created)		
DT	01-APR-1992	(Rel. 23, Last sequence update)		
DT	05-JUL-2004	(Rel. 44, Last annotation update)		
DE	Wnt-3a protein precursor			
GN	Name=Wnt3a; Synonyms=Wnt-3a;			
OS	Mus musculus (Mouse)			
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			
OC	Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus;			
OX	NCBI_TaxID=10030;			
RN	[1] -			
RP	SEQUENCE FROM N.A.			
RC	TISSUE=Embryo;			
RX	Medline=91160971; PubMed=2001840;			
RA	RoeLink H., Nusse R.;			
RT	"Expression of two members of the Wnt family during mouse development -- restricted temporal and spatial patterns in the developing neural tube";			
RT	"Function: Ligand for members of the frizzled family of seven transmembrane receptors. Wnt-3 and Wnt-3a play distinct roles in cell-cell signaling during morphogenesis of the developing neural tube.";			
RL	Nature 423:448-452(2003)			
CC	-1- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors. Wnt-3 and Wnt-3a play distinct roles in cell-cell signaling during morphogenesis of the developing neural tube.			
CC	CC			
CC	-1- SIMILARITY: Belongs to the Wnt family.			
CC	CC			
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CC	CC			
CC	CC			
DR	X56842; CAA40173.1; -			
DR	PIR; A39532; A39532;			
DR	MGI; MGI_98956; Wnt3a.			
DR	GO; GO:0030097; P:hemoipoiesis; IDA.			
DR	GO; GO:0045595; P:regulation of cell differentiation; IDA.			
DR	GO; GO:0045595; P:regulation of cell differentiation; IDA.			

RESULT 4

WN3A HUMAN STANDARD; PRT; 352 AA.

ID P56704; Q969P2; 38, Created

AC DT 15-JUL-1999 (Rel. 38, Last sequence update)

DT 28-FEB-2003 (Rel. 41, Last annotation update)

DT 05-JUL-2004 (Rel. 44, Last annotation update)

DB Wnt-3a Protein precursor.

GN Name=WNT3A;

OS Homo sapiens (Human).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

NCI-TaxID=9606;

RN [1]

RP SEQUENCE FROM N.A. DOI=10.1006/bbrc.2001.5105;

RX MEDLINE=21308441; PubMed=11414706; DOI=10.1006/bbrc.2001.5105;

RA Saitoh T., Hirai M., Katoh M., "Molecular cloning and characterization of WNT3a and WNT14 clustered in human chromosome 1q42 region." Biochem. Biophys. Res. Commun. 284:1168-1175 (2001).

RN [2]

RP SEQUENCE FROM N.A. DOI=10.1038/ng1285;

RX MEDLINE=14702039; PRINTER: WNT3PROTEIN.

RA Ota T., Suzuki Y., Nishikawa T., Otsuaki T., Sugiyama T., Irie R., Wakanishi A., Hayashi K., Sato H., Nagai K., Kimura K., Makita H., Sekine M., Obayashi M., Nishi T., Shibusawa T., Tanaka T., Ishii S., Yamamoto J.-I., Saito K., Kawai Y., Isono Y., Natamura Y., Nagahara K., Murakami K., Yasuda T., Iwayanagi T., Wagatsuna M., Shiratori A., Sudo H., Hosoi T., Kaku Y., Kodaira H., Kondo H., Sugawara M., Takahashi M., Kanda K., Yohoi T., Furuya T., Kikkawa E., Omura Y., Abe K., Kamiyama K., Katsuta N., Sato K., Tanikawa M., Yamazaki M., Ninomiya K., Ishibashi T., Yamashita H., Murakawa K., Fujimori K., Tanai H., Kimate M., Watanabe M., Hiraoka S., Chiba Y., Ishida S., Ono Y., Takiguchi S., Watanabe S., Yosida N., Hotoda T., Kusano J., Kaneshori K., Takahashi-Puji A., Hara H., Tanase T.-O., Nomura Y., Togiya S., Konai F., Hara R., Takeuchi K., Arita M., Imose N., Musashino K., Yuuki H., Oshima A., SASAKI N., AoeSaka S., Yoshihikawa Y., Komiyama H., Matsunawa H., Ichihara T., Shiohata N., Sano S., Moriya S., Moniyama H., Satoh N., Takami S., Terashima Y., Suzuki O., Nakagawa S., Senoh A., Mizoguchi H., Goto Y., Shimizu F., Wakebe H., Hishigaki H., Watanabe T., Sugiyama A., Takenoto M., Kawakami B., Yamazaki M., Watanabe K., Kumagai A., Itakura S., Fukuzumi Y., Fujimori Y., Komiyama M., Tashiro H., Tanigami A., Fujiwara T., Ono T., Yamada K., Fujii Y., Ozaki K., Hirao M., Ohmori Y., Kawabata A., Hikiji T., Kobatake N., Inagaki H., Ikeda Y., Okamoto S., Okitani R., Kawakami T., Noguchi S., Itoh T., Shigeita K., Senba T., Matsumura K., Nakajima Y., Mizuno T., Morinaga M., Sasaki M., Togashi T., Oyama M., Hata H., Watanabe M., Komatsu T., Mizushima S., Sugano J., Satoh T., Shirai Y., Takahashi Y., Nakagawa K., Okumura K., Nagase T., Nomura N., Kikuchi H., Maehata Y., Yamashita R., Nakai K., Yada T., Nakamura Y., Ohara O., Isogai T., Sugano S.; cDNAs;" RT "Complete sequencing and characterization of 21,243 full-length human genes." Nat. Genet. 36:40-45 (2004).

RN [3]

RP SEQUENCE OF 207-330 FROM N.A.

RC TISSUE=Breast;

RX MEDLINE=94221588; PubMed=8168088;

RA Huguet E.L., McMahon J.A., McMahon A.P., Bicknell R., Harris A.L.; RT "Differential expression of human Wnt genes 2, 3, 4, and 7B in human breast cell lines and normal and disease states of human breast tissue." Cancer Res. 54:2615-2621 (1994).

CC -1- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors. Wnt-3 and Wnt-3a play distinct roles in cell-cell signaling during morphogenesis of the developing neural tube.

CC -1- SUBCELLULAR LOCATION: Possibly secreted and associates with the extracellular matrix.

CC -1- TISSUE SPECIFICITY: Moderately expressed in placenta and at low levels in adult lung, spleen, and prostate.

CC -1- SIMILARITY: Belongs to the Wnt family.

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CC DR EMBL; AB060284; BAB61052_1; -.

CC DR EMBL; AK056278; BAB1136_1; -.

CC DR Genew; HGNC:15983; WNT3A.

CC DR H-Indb; HIX0001654; -.

CC DR MIM; 606359; -.

CC DR GO; GO:0005576; C:extracellular matrix; structural constituent; NAS.

CC DR GO; GO:0005201; F:extracellular matrix; signaling; NAS.

CC DR GO; GO:0009653; P:morphogenesis; NAS.

CC DR InterPro; IPR05817; Wnt.

CC DR InterPro; IPR05816; Wnt3.

CC DR InterPro; IPR05816; Wnt_3rthfactor.

CC DR Pfam; PF00110; wnt_1.

CC DR PRINTS; PR01843; WNT3PROTEIN.

CC DR PRINTS; PR01349; WNT3PROTEIN.

CC DR SMART; SM00097; WNT1.

CC DR PROSITE; PS00246; WNT1; 1.

CC KW Developmental Protein; Extracellular matrix; Glycoprotein; Lipoprotein; Palmitate; Signal; Wnt signaling pathway.

CC FT CHAIN 1 24 Potential.

CC FT SIGNAL 1 24 Potential.

CC FT CHAIN 25 352 Wnt-3a protein.

CC FT LIPID 77 77 S-palmitoyl cysteine (By similarity).

CC FT CARBOHYD 77 87 N-linked (GlcNAc . . .) (Potential).

CC FT CARBOHYD 298 298 N-linked (GlcNAc . . .) (Potential).

CC SQ SEQUENCE 352 AA; 39384 MW; A317BD6D4A73920B CRC64;

CC Query Match 92.9%; Score 118; DB 1; Length 352;

CC Best Local Similarity 95.2%; Pred. No. 1.7e-10; Gaps 0; Mismatches 20; Conservative Matches 20; Indels 0; Gaps 0;

CC QY 1 KAGTCQCQHQFRGRWNCCTV 21

CC Db 71 KIGIQCQCQHQFRGRWNCCTV 91

CC RESULT 5

CC Q6IVD9 PRELIMINARY; PRT; 365 AA.

CC ID Q6IVD9 PRELIMINARY; PRT; 365 AA.

CC AC Q6IVD9 PRELIMINARY; PRT; 365 AA.

CC DT 05-JUL-2004 (TREMBUREL 27, Created)

CC DT 05-JUL-2004 (TREMBUREL 27, Last sequence update)

CC DT 05-JUL-2004 (TREMBUREL 27, Last annotation update)

CC DT Wnt3a.

CC OS Name=wnt3_1; Synonyms=wnt3a; Brachydanio rerio (zebrafish) (Danio rerio). Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Butteleostomi; Actinopterygii; Neopterygii; Teleostei; Cypriniformes; Cyprinidae; Danio.

CC OC NCBI_TaxID=7955;

CC RN [1] SEQUENCE FROM N.A.

CC RP SEQUENCE FROM N.A.

CC RX Published=15147762;

CC RA "Combinatorial Wnt control of zebrafish midbrain-hindbrain boundary formation"; RT Mech. Dev. 121:437-447(2004).

CC -1- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors (By similarity).

CC -1- SUBCELLULAR LOCATION: Possibly secreted and associates with the extracellular matrix (By similarity).

CC -1- SIMILARITY: Belongs to the Wnt family.

CC EMBL; AY613787; AAT38336_1; ZFIN_ZDB-GENE_001106-1; wnt3_1.

CC DR GO; GO:0005576; C:extracellular matrix; IEA.

GO: GO:0004871; F: signal transducer activity; IEA.
 GO: GO:007275; P: development; IEA.
 GO: GO:007223; P: frizzled-2 signaling pathway; IEA.
 InterPro; IPR005817; Wnt.
 InterPro; IPR009141; Wnt3.
 InterPro; IPR005816; Wnt grthfactor.
 DR DR PF00110; wnt; 1.
 PRINTS; PRO1843; WNT3PROTEIN.
 PRINTS; PRO1349; WNTPROTEIN.
 SMART; SMD0097; WNT1; 1.
 PROSITE; PS00246; WNT1; 1.
 Developmental protein; Wnt Signaling pathway.
 SEQUENCE 365 AA; 41483 MW; B2BD374953359D6 CRC64;
 KW SQ

Query Match 92.9%; Score 118; DB 2; Length 365;
 Best Local Similarity 86.4%; Pred. No. 1..7e-10;
 Matches 19; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 KAGIQECQHQFRGRRNCTTYS 22
 Db 72. KIGIQECQHQFRGRRNCTTIN 93

RESULT 6

Q8BLT2	ID	Q8BLT2	PRELIMINARY;	PRT;	329 AA.
AC		Q8BLT2;	(T+EMBLrel).	23,	Created
DT	01-MAR-2003	(T+EMBLrel).	23,	Last sequence update	
DT	01-MAR-2003	(T+EMBLrel).	26,	Last annotation update	
DT	01-MAR-2004	(T+EMBLrel).			
DE	Mus musculus	7 days neonate cerebellum cDNA, RIKEN full-length enriched library, clone:AT30047N19 product:WNT-3 PROTO-ONCOGENE PROTEIN homolog (Fragment).			
DE	Name=Wnt3;				
GN	OS	Mus musculus (Mouse).			
GN	OC	Bivalvia; Mollusca; Chordata; Craniota; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathii; Muridae; Murinae; Mus.			
NCBI_TAXID=10090;	OX				
RN	RP	SEQUENCE FROM N.A.			
RC	STRAIN=C57BL/6J; TISSUE=Cerebellum;				
RC	MEDLINE=92072955; PubMed=10349336; DOI=10.1016/S0076-6879(99)03004-9;				
RX	Carninci P., Hayashizaki Y.;				
RA	"High-efficiency full-length cdna cloning.";				
RT	Meth. Enzymol. 303:19-44(1999).				
RL	[1]				
RN	SEQUENCE FROM N.A.				
RC	STRAIN=C57BL/6J; TISSUE=Cerebellum;				
RX	MEDLINE=92108566; PubMed=11217851; DOI=10.1038/35055500;				
RA	RIKEN FANTOM Consortium;				
RA	"Functional annotation of a full-length mouse cDNA collection.";				
RT	Nature 409:685-690(2001).				
RL	[2]				
RN	SEQUENCE FROM N.A.				
RC	STRAIN=C57BL/6J; TISSUE=Cerebellum;				
RX	MEDLINE=20199374; PubMed=11042159; DOI=10.1101/gr.145100;				
RA	The RIKEN Genome Exploration Research Group Phase I & II Team;				
RA	"Analysis of the mouse transcriptome based on functional annotation o				
RT	60-770 full-length cDNAs.";				
RT	Nature 420:563-573 (2002).				
RL	[3]				
RN	SEQUENCE FROM N.A.				
RC	STRAIN=C57BL/6J; TISSUE=Cerebellum;				
RA	the FANTOM Consortium,				
RA	"Analysis of the mouse transcriptome based on functional annotation o				
RT	60-770 full-length cDNAs.";				
RT	Nature 420:563-573 (2002).				
RL	[4]				
RN	SEQUENCE FROM N.A.				
RC	STRAIN=C57BL/6J; TISSUE=Cerebellum;				
RX	MEDLINE=20520913; PubMed=11076861; DOI=10.1101/gr.152600;				
RA	Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., Itoh M., Konno H., Okazaki Y., Murata M., Hayashizaki Y.;				
RA	"Normalization and subtraction of cap-trapper-selected cDNAs to				
RT	prepare full-length cDNA libraries for rapid discovery of new genes."				
RT	Genome Res. 10:1617-1630 (2000).				
RL	[5]				
RN	SEQUENCE FROM N.A.				
RC	STRAIN=C57BL/6J; TISSUE=Cerebellum;				
RX	MEDLINE=20520913; PubMed=11076861; DOI=10.1101/gr.152600;				

RP	SEQUENCE FROM N.A.	P17553;
RA	Testa T.T., Mosakowska D.E., Carter P.S., Hu E., Zhu Y., Kelsell D.B., Murdoch P.R., Herrity N.C., Lewis C.J., Cross D.A., Culbert A.A., Reith A.D., Barnes M.R.;	Rel. 15, Created) 01-AUG-1990 (Rel. 15, Last sequence update)
RA	"Molecular cloning and characterization of six novel human WNT genes.";	05-JUL-2004 (Rel. 44, Last annotation update)
RT	Submitted (AUG-2000) to the ENSEMBL/GenBank/DDBJ databases.	Wnt-3 proto-oncogene precursor.
RL	[2]	Name=Wnt3; Synonyms=Int-4, Wnt-3;
RN	SEQUENCE FROM N.A.	Mus musculus (Mouse).
RP	SEQUENCE FROM N.A.	Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Butteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
RX	Medline=21490205; PubMed=11604997;	NCBI_TaxID=10090;
RA	Katoh M.;	OX
RT	"Molecular cloning and characterization of human WNT3.";	[1] _
RL	Int. J. Oncol. 19:977-982(2001).	NCBI_TaxID=10090;
RN	SEQUENCE OF 1-333 FROM N.A.	RN
RP	Medline=91063935; PubMed=824403;	SEQUENCE FROM N.A.
RX	Roelink H., Wang J., Black D.M., Solomon E., Nusse R.; RT	STRAIN=BALB/C; TISSUE=Embryo;
RA	"Molecular cloning and chromosomal localization to 17q21 of the human WNT3 gene.";	RA
RT	Genomics 17:790-792(1993).	Medline=3080407; PubMed=2162045;
RL	-I- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors. Wnt-3 and Wnt-3a play distinct roles in cell-cell signaling during morphogenesis of the developing neural tube (By similarity).	RT
CC	-I- SUBCELLULAR LOCATION: Possibly secreted and associates with the extracellular matrix.	RT
CC	-I- SIMILARITY: Belongs to the Wnt family.	Proc. Natl. Acad. Sci. U.S.A. 87:4519-4523(1990).
CC	-I- TISSUE SPECIFICITY: Dorsal portion of the neural tube, dorsal ectoderm, the branchial arches, and the limb buds.	-I- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors. Wnt-3 and Wnt-3a play distinct roles in cell-cell signaling during morphogenesis of the developing neural tube.
CC	-I- DISEASE: Some mouse mammary tumors induced by mouse mammary tumor virus (MMTV) contain a provirus integrated into a host cell region which has been named Wnt3.	-I- TISSUE SPECIFICITY: Dorsal portion of the neural tube, dorsal ectoderm, the branchial arches, and the limb buds.
CC	-I- SIMILARITY: Belongs to the Wnt family.	-I- TISSUE SPECIFICITY: Dorsal portion of the neural tube, dorsal ectoderm, the branchial arches, and the limb buds.
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CC	DR EMBL; AB067628; BAB70502.1; -.	CC
DR	PIR; A47536; A47536.	CC
DR	Gene; HGNC:127482; WNT3.	CC
DR	MIM; 165310; -.	CC
DR	GO; GO:0005576; C:extracellular; NAS.	CC
DR	GO; GO:0005201; F:extracellular matrix; structural constituent; NAS.	CC
DR	GO; GO:0007267; P:cell-cell signaling; NAS.	CC
DR	GO; GO:0009653; P:morphogenesis; NAS.	CC
DR	IPRO05817; Wnt.	CC
DR	InterPro; IPRO05814.1; Wnt.	CC
DR	InterPro; IPRO05816; Wnt_9rthfactor.	CC
DR	PFam; PF00110; wnt.1.	CC
DR	PRINTS; PR01843; WNT3PROTEIN.	CC
DR	SMART; SM0097; WNT1.	CC
DR	PROSITE; PS00246; WNT1.1.	CC
DR	KW Developmental protein; Extracellular matrix; Glycoprotein; Proto-oncogene; Signal; Wnt signaling pathway.	KW Developmental protein; Extracellular matrix; Glycoprotein; Proto-oncogene; Signal; Wnt signaling pathway.
FT	SIGNAL 1 21	FT SIGNAL 1 21
FT	CHAIN 22 355	FT CHAIN 22 355
FT	CARBONYD 90 90	FT CARBOHYD 90 90
FT	N-LINKED 301 (GLCNAC. . .) (Potential).	FT N-LINKED (GLCNAC. . .) (Potential).
SQ	SEQUENCE 355 AA; 39645 MW; 85D15F2C7884464P CRC64;	SQ SEQUENCE 355 AA; 39659 MW; F31CED65E43E9C17 CRC64;
Query Match	92.1%; Score 117; DB 1; Length 355;	Query Match 92.1%; Score 117; DB 1; Length 355;
Best Local Similarity	90.5%; Pred. No. 2.5e-10;	Best Local Similarity 90.5%; Pred. No. 2.5e-10;
Matches	19; Conservative 1; Mismatches 1; Indels 0; Gaps 0;	Matches 19; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
Qy	1 KAGIQOBQHQFRGRWNCCTV 21	Qy 1 KAGIQOBQHQFRGRWNCCTV 21
Db	74 XKGQBCQHQFRGRWNCCTI 94	Db 74 XKGQBCQHQFRGRWNCCTI 94 .
RESULT 9		RESULT 9
RESUL 8		RESUL 8
WNT3_MOUSE		WNT3_MOUSE
ID		ID
WNT3_MOUSE	STANDARD;	STANDARD;
AC	Q8WS76	PRELIMINARY;
AC	Q8WS76;	PRT;
DT	01-MAR-2002	01-MAR-2002 (TREMBLrel. 20, Created)

DT 01-MAR-2002 (TREMBLrel. 20, Last sequence update)
 DT 01-MAR-2004 (TREMBLrel. 26, Last annotation update)

DE Secreted glycoprotein Wnt3.

GN Name=Wnt3;

OS Branchiostoma floridae (Florida lancelet) (Amphioxus).

OC Branchiostoma; Metazoa; Chordata; Cephalochordata; Branchiostomidae;

OC Branchiostoma.

NCBI_TaxID=7739;

RN [1]

SEQUENCE FROM N.A.; PubMed=11784062; DOI=10.1006/dbio.2001.0460;
 MEDLINE=21643999; Pubmed_N_A.; Stokes M.D., Holland N.D.;
 Schubert M., Holland L.Z., Stokes M.D., Holland N.D.;

RA "Three amphioxus Wnt genes (AmphiWnt3, AmphiWnt5, and AmphiWnt6) associated with the tail bud: the evolution of somitogenesis in chordates".

RL Dev. Biol. 240:262-273 (2001).

CC -I- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors (By similarity).

CC -I- SUBCELLULAR LOCATION: Possibly secreted and associates with the extracellular matrix (By similarity).

CC -I- SIMILARITY: Belongs to the Wnt family.

DR EMBL; AF361013; AAL37555.1; .

DR GO:0005776; C:extracellular; IPA.

DR GO:0004871; P:signal transducer activity; IEA.

DR GO:0007275; P:development; IEA.

DR GO:0007223; P:frizzled-2 signaling pathway; IEA.

DR PFAM; PF00110; wnt_1.

DR PRINTS; PRO1343; WNT3PROTEIN.

DR SMART; SM00097; WNT1_1.

DR PROSITE; PS010246; WNT1_1.

KW DEVELOPMENTAL PROTEIN; Wnt signaling pathway.

SQ SEQUENCE 395 AA; 43975 MW; 08F31E4D9RA369P CRC64;

Query Match 89.8%; Score 114; DB 2; Length 395;
 Best Local Similarity 90.5%; Pred. No. 8.3e-10; Indels 0; Gaps 0;

Matches 19; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Db 87 KAGIQECOHQFRGRWNCTV 107

Qy 1 KAGIQECOHQFRGRWNCTV 21

RESULT 10
 WNT5B MOUSE STANDARD; PRT; 359 AA.

ID F227KMF5; AC P2-1991 (Rel. 19, Created)
 DT 01-AUG-1991 (Rel. 40, Last sequence update)
 DT 16-OCT-2001 (Rel. 45, Last annotation update)

DE Wnt-5b protein precursor.

GN Name=Wnt5b; Synonyms=Wnt-5b;

OS Mus musculus (Mouse).

OC Mammalia; Eutheria; Rodentia; Sciurognathii; Muridae; Murinae; Mus.

NCBI_TaxID=10090;

RN [1]

SEQUENCE FROM N.A.; PubMed=2279700;

RX Gavin B.J., McMahon J.A., McMahon A.P.; PT "Expression of multiple novel Wnt-1/int-1-related genes during fetal and adult mouse development.", RT Genes Dev. 4:2319-2332(1990)."

RN [2]

SEQUENCE FROM N.A.; PubMed=1073257; PT STRAIN=NFB/N-3; TISSUE=Liver, and Mammary gland; RC MEDLINE=222388257; ID 01073257; Group=10.1073/pnas.242603899;
 RA Straubhaar R.L., Feingold E.A., Wagner L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.C., Shemesh C.M., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.B., NCBI_TaxID=7739;

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loqueland N.A., Peters R.D., Abramson K.J., Malek J.A., Mullany S.J., Mullany S.J., McEwan P.J., McKernan K.J., Malek J.A., Gunnarsette P.H., Boeck G.A., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Gibbs R.A., Villalon D.K., Murry D.M., Sodergren B.J., Lu X., Roerigues S., Sanchez A., Rahey J., Heiton B., Ketteman M., Madan A., Roerigues S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schein J.E., Marra M.A., Schnarr A., Schein J.E., Jones S.J.M., Marra M.A., RT "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences." Proc. Natl. Acad. Sci. U.S.A. 99:16893-16903 (2002).

RA -I- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors. Probable developmental protein. May be a signaling molecule which affects the development of discrete regions of tissues. Is likely to signal over only few cell diameters.

RA -I- SUBCELLULAR LOCATION: Possibly secreted and associates with the extracellular matrix.

RA -I- SIMILARITY: Belongs to the Wnt family.

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CC -I- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors. Probable developmental protein. May be a signaling molecule which affects the development of discrete regions of tissues. Is likely to signal over only few cell diameters.

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CC DR M89799; AAA40568.1; ALT INIT.
 EMBL BC010775; AAH10775.1; ALT INIT.

CC DR EMBL BC051406; AAH51406.1; .

CC DR PIR; B36470; B36470.

CC DR MGD; MGI:389559; Wnt5b.

CC DR InterPro; IPR005817; Wnt_grtfactor.

CC DR InterPro; IPR005816; Wnt_grtfactor.

CC DR Pfam; PF00110; wnt_1.

CC DR PRINTS; PRO1349; WNTPROTEIN.

CC DR PROSITE; PS00246; WNT1_1.

CC DR Developmental Protein; Glycoprotein; Signal; Wnt signaling pathway.

CC KW SIGNAL

FT CHAIN 1 359 Wnt-5b protein.
 FT CARBOHYD 93 93 N-linked (GlcNAc. . .) (Potential).
 FT CARBOHYD 99 99 N-linked (GlcNAc. . .) (Potential).
 FT CARBOHYD 291 291 N-linked (GlcNAc. . .) (Potential).
 FT CARBOHYD 305 305 N-linked (GlcNAc. . .) (Potential).
 SQ SEQUENCE 359 AA; 40343 MW; 308BB392D3020DEB CRC64;

CC DR Query Match 81.1%; Score 103; DB 1; Length 359;
 DR Best Local Similarity 81.0%; Pred. No. 4.4e-08;
 DR Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 1 KAGIQECOHQFRGRWNCTV 21
 Db 77 KTGTIRECQHQFRGRWNCTV 97

RESULT 11
 Q8WS75 PRELIMINARY; PRT; 370 AA.

ID Q8WS75; AC Q8WS75; DT 01-MAR-2002 (TREMBLrel. 20, Created)
 DE 01-Oct-2003 (TREMBLrel. 25, Last annotation update)

GN Name=Wnt5;

OS Branchiostoma floridae (Florida lancelet) (Amphioxus);
 OC Bivalvia; Metazoa; Chordata; Cephalochordata; Branchiostomidae;

OC Branchiostoma;

NCBI_TaxID=7739;

RN [1]

RP SEQUENCE FROM N.A.; MEDLINE=91122634; PubMed=2279700;

RX Gavin B.J., McMahon J.A., McMahon A.P.; PT "Expression of multiple novel Wnt-1/int-1-related genes during fetal and adult mouse development.", RT Genes Dev. 4:2319-2332(1990)."

RN [2]

RP SEQUENCE FROM N.A.; MEDLINE=222388257; PubMed=1073257; Group=10.1073/pnas.242603899;

RX Straubhaar R.L., Feingold E.A., Wagner L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Schuler G.D., Altschul S.F., Zeeberg B., Buetow K.C., Shemesh C.M., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.B., NCBI_TaxID=7739;

SEQUENCE FROM N.A. PubMed=11784062; DOI=10.1006/dbio.2001.0460;
 RX MEDLINE=21643903; PubMed=11784062; DOI=10.1006/dbio.2001.0460;
 RA Schubert M., Holland L.Z., Stokes M.D., Holland N.D.;
 RT "Three amphioxus Wnt genes (AmphiWnt3, AmphiWnt5, and AmphiWnt6)
 associated with the tail bud: the evolution of somitogenesis in
 chordates";
 RT Dev. Biol. 240:262-273 (2001).
 -!- FUNCTION: Ligand for members of the frizzled family of seven
 transmembrane receptors (By similarity).
 CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
 extracellular matrix (By similarity).
 CC -!- SIMILARITY: Belongs to the Wnt family.
 DR EMBL: AP61014; AAU37556; 1.
 DR GO; GO:0005576; C:extracellular; IEA.
 DR GO; GO:0004871; F:protein transducer activity; IEA.
 DR GO; GO:007275; P:development; IEA.
 DR Pfam: PF00110; wnt; 1.
 DR PRINTS: PS01349; WNTPROTEIN.
 DR SMART: SM00097; WNT1; 1.
 DR PROSITE: PS00246; WNT1; 1.
 DR KW Developmental protein; Extracellular matrix; Glycoprotein; Signal;
 DR KW Wnt signaling pathway.
 DR KW Wnt; 1.
 DR PROSITE; PS00246; WNT1; 1.
 DR KW Developmental protein; Wnt signalling pathway; IEA.
 DR SEQUENCE: 370 AA; 41818 MW; 58dAB64EA31976A7 CRC64;
 SQ Query Match 79.5%; Score 101; DB 2; Length 370;
 Best Local Similarity 80.0%; Pred. No. 9.5e-08;
 Matches 16; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 1 KAGIQEQHQPRGRRNCTT 20
 :|:|||:|||:|||:|||:
 85 RQGIEEQHQFRDRRNCTT 104

RESULT 12
 WNT5C_XENLA ID WNT5C_XENLA STANDARD; PRT; 350 AA.

AC P33945; Q91928;
 DT 01-FBB-1994 (Rel. 28, Created)
 DT 01-FBB-1994 (Rel. 28, Last sequence update)
 DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE Wnt-5c protein precursor (XWNT-5C).
 GN Name=WNT-5c;
 OS Xenopus laevis (African clawed frog).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
 OC Xenopodinae; Xenopus.
 OC NCBI_TaxID=8355;
 RN [1]
 RP Koster J.G., Kuiken G.A., Stegeman B., Peterson J., Eizema K.,
 RA Stabel L., Dekker E.J., Destre O.H.J.;
 RA Submitted (JUN-1993) to the EMBL/GenBank/DBJ databases.
 RN [2]
 RP SEQUENCE OF 1-27 FROM N.A.
 RC TISSUE=Embryo;
 RX MEDLINE=94261437; PubMed=8202371;
 RA Kuijken G.A., Bartens P.J.A., Peterson-Maduro J., Veenstra G.J.C.,
 RA Koster J.G., Destre O.H.J.;
 RT "The promoter of the XWNT-5C gene contains octamer and AP-2 motifs
 functional in Xenopus embryos";
 RT Nucleic Acids Res. 22:1675-1680 (1994).
 RL CC FUNCTION: Ligand for members of the frizzled family of seven
 transmembrane receptors. Probable developmental protein. May be a
 signaling molecule which affects the development of discrete
 regions of tissues. Is likely to signal over only few cell
 diameters.
 CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
 extracellular matrix. Expression in the early gastrula stage
 CC onwards.
 CC -!- SIMILARITY: Belongs to the Wnt family.
 CC

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 CC or send an email to license@isb-sib.ch).
 CC
 CC DR EMBL; X73510; CAA51916; 1.
 CC DR EMBL; X76190; CAA53784; 1.
 DR PIR; S34173; S34173.
 DR InterPro; IPR005811; Wnt.
 DR InterPro; IPR005816; Wnt_grtfactor.
 DR Pfam; PF00110; wnt; 1.
 DR PRINTS; PR01349; WNTPROTEIN.
 DR SMART; SM00097; WNT1; 1.
 DR PROSITE; PS00246; WNT1; 1.
 DR PS00246; WNT1; 1.
 DR SIGNAL; 1
 PT CHAIN 17 360
 PT CARBOHYD 94 94 N-linked (GlcNAc . . .) (Potential).
 PT CARBOHYD 100 100 N-linked (GlcNAc . . .) (Potential).
 PT CARBOHYD 292 292 N-linked (GlcNAc . . .) (Potential).
 PT CARBOHYD 306 306 N-linked (GlcNAc . . .) (Potential).
 FT CONFLICT 15 15 S -> C (in Ref. 2).
 SQ SEQUENCE 360 AA; 40714 MW; 93CB15D7A9279E CRC64;
 DR Query Match 78.7%; Score 100; DB 1; Length 360;
 DR Best Local Similarity 76.2%; Pred. No. 1.3e-07;
 DR Matches 16; Conservative 3; Mismatches 2; Indels 0; Gaps 0;

Qy 1 KAGIQEQHQPRGRRNCTT 21
 DR 78 KTGIEEQHQFRDRRNCTV 98

RESULT 13
 ID Q6DTI0 PRELIMINARY; PRT; 360 AA.
 AC Q6DTI0
 DT 25-OCT-2004 (TREMBLrel. 28, Created)
 DT 25-OCT-2004 (TREMBLrel. 28, Last sequence update)
 DE Wnt5b-prov protein.
 GN Name=wnt5b-prov;
 OS Xenopus tropicalis (Western clawed frog) (Xllurana tropicalis).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
 OC Xenopodinae; Xenopus.
 NCBI_TaxID=8364;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Embryo;
 RX MEDLINE=92388357; PubMed=12477932; DOI=10.1073/pnas.2412603899;
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shemesh C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.P., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
 RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Raha S.S., Loqueland N.A., Peters G.J., Abramson R.D., Mullphy S.J.,
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalobos D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahy J., Heitton E., Kettman M., Madan A., Rodriguez S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green B.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
 RA Krzywinski M.I., Skalska U., Smallius D.E., Schnerch A., Schein J.E.,
 RA Jones S.J., Marrs M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";

Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
[2]

RL	SEQUENCE FROM N.A.	TISSUE=Ovary; MEDLINE=12454917; PubMed=12454917; DOI=10.1002/dvdy.10174;
PN		RX Klein S.I., Strausberg R.L., Wagner L., Pontius J., Cliffen S.W., Richardson P.,
RP		RA "Genetic and genomic tools for Xenopus research: The NIH Xenopus initiative"; RT Dev. Dyn. 225:384-391 (2002).
RC		RN [3]
TC		SEQUENCE FROM N.A.
CC	-I- SUBCELLULAR LOCATION: Possibly secreted and associates with the transmembrane receptors (By similarity). CC -I- SIMILARITY: Belongs to the Wnt family. CC -I- EXTRACELLULAR MATRIX (By similarity). DR GO; GO:0005576; C:extracellular; IBA.	RP RA Submitted (AUG-2003) to the EMBL/GenBank/DBJ databases. RA "FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors (By similarity). Possibly secreted and associates with the extracellular matrix (By similarity). CC -I- SUBCELLULAR LOCATION: Belongs to the Wnt family. CC -I- SIMILARITY: Belongs to the Wnt family. DR EMBL: BC056128; AAH56128; 1. DR GO; GO:0005576; C:extracellular; IBA.
CC	-I- PROTEIN TRAVERSAL: P:signal transducer activity; IBA. DR GO; GO:0004871; F:signal transducer activity; IBA. DR GO; GO:0007223; P:frizzled-2 signaling pathway; IBA. DR InterPro: IPR005817; Wnt. DR InterPro: IPR005816; Wnt_grtfactor. DR Pfam: PF00110; wnt; 1. DR PRINTS: PRO1349; WNTPROTEIN. DR SMART: SM00097; WNT1; 1. DR PROSITE: PS00246; WNT1; 1. DR Developmental protein; Wnt signaling pathway. KW Developmental protein; Wnt signaling pathway. SQ SEQUENCE 360 AA; 40703 MW; A712F42FF085EB2 CRC64;	DR GO; GO:0007275; P:signal transducer activity; IBA. DR GO; GO:0007223; P:frizzled-2 signaling pathway; IBA. DR InterPro: IPR005816; Wnt_grtfactor.
CC	Query Match 78.7%; Score 100; DB 2; Length 360; Best Local Similarity 76.2%; Pred. No. 1; 3e-07; Gaps 0; Matches 16; Conservative 3; Mismatches 2; Indels 0; Gaps 0;	DR PROSITE: PS00246; WNT1; 1. KW Developmental protein; Wnt signaling pathway. SQ SEQUENCE 360 AA; 997AA2581CDBB CRC64;
Qy	1 KAGIOECQHQFRGRWNCTV 21 : : : : : 78 KTGIKECQHQFRGRWNCTV 98	Query Match 78.7%; Score 100; DB 2; Length 360; Best Local Similarity 76.2%; Pred. No. 1; 3e-07; Gaps 0; Matches 16; Conservative 3; Mismatches 2; Indels 0; Gaps 0;
Db		DR PROSITE: PS00246; WNT1; 1. DR InterPro: IPR005816; Wnt_grtfactor.
RESULT 14		Q7TOM2 PRELIMINARY; PRT; 360 AA.
ID	Q7TOM2	WNT5B HUMAN STANDARD; PRT;
AC	Q7TOM2;	Q9HS49; Q9BY04;
DT	01-OCT-2003 (TREMBLrel. 25, Created)	AC 09HS49; Q9BY04;
DT	01-OCT-2003 (TREMBLrel. 25, Last sequence update)	DT 16-Oct-2001 (Rel. 40, Created)
DE	Wnt-2/protein	DT 28-Feb-2003 (Rel. 41, Last sequence update)
OS	Xenopus laevis (African clawed frog).	DT 05-Jul-2004 (Rel. 44, Last annotation update)
OC	Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;	DB Wnt-5b protein precursor.
OC	Amphibia; Batracia; Anura; Metabatrachia; Pipidae;	GN Name=WNT5B;
OC	Xenopoda; Xenopus.	OS Homo sapiens (Human).
NCBI_TAXID	6355;	OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
NCBI_TAXID	11	OC Mammalia; Butharia; Primates; Catarrhini; Hominidae; Homo.
RN		NCBI_TaxID=9606;
RP	SEQUENCE FROM N.A.	RN
RC	TISSUE=Ovary;	RP SEQUENCE FROM N.A.
RA	MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;	RA SEQUENCE FROM N.A.
RA	Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,	RA SEQUENCE FROM N.A.
RA	Klausner R.D., Collins F.S., Wagner L., Shemesh C.M., Schulier G.D.,	RA SEQUENCE FROM N.A.
RA	Altschul S.F., Zeeberg B., Buetow K.H., Schaeffer C.F., Bhat N.K.,	RA SEQUENCE FROM N.A.
RA	Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,	RA SEQUENCE FROM N.A.
RA	Dzatchenko L., Marusina K., Farmer A.P., Rubin G.M., Hong L.,	RA SEQUENCE FROM N.A.
RA	Shapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,	RA SEQUENCE FROM N.A.
RA	Brownstein M.J., Uedin T.B., Toshiyuki S., Carninci P., Prange C.,	RA SEQUENCE FROM N.A.
RA	Bosak S.A., Loqueland N.A., Peters G.J., Abramson R.D., Mullahy S.J.,	RA SEQUENCE FROM N.A.
RA	Richards S., Worley K.C., Hale S., Garcia A.M., Malek J.A., Hulyk S.W.,	RA SEQUENCE FROM N.A.
RA	Villalon D.K., Mutny D.M., Sodergren E.J., Lu X., Gibbs R.A.,	RA SEQUENCE FROM N.A.
RA	Fahey J., Heitton E., Kettman J., Madan A., Rodrigues S., Sanchez A.,	RA SEQUENCE FROM N.A.
RA	Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,	RA SEQUENCE FROM N.A.
RA	Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,	RA SEQUENCE FROM N.A.
RA	Rodriguez A.C., Grimwood J., Schmitz J.J., Myers R.M., Butterfield Y.S.,	RA SEQUENCE FROM N.A.
RA	Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,	RA SEQUENCE FROM N.A.
RA	Jones S.J., Marra M.A./ "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences." Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002). [2]	RA SEQUENCE FROM N.A.
RP	SEQUENCE FROM N.A.	RC TISSUE=Muscle;
RC		RA MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RC		RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA		RA Klausner R.D., Collins F.S., Wagner L., Shemesh C.M., Schulier G.D.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.P., Jordan H., Moore T., Max S.I., Wang J., Hsieh P.,
 RA Diatchenko L., Marsina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carnicano P., Prange C.,
 RA Raha S.S., Loquaiello N.A., Peters G.J., Abramson R.D., Millahy S.J.,
 RA Bosak S.A., McIwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Hellton E., Kerteman M., Madan A., Rodrigues S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmitz J., Myers R.M.,
 RA Butterfield V.S.N., Krzywinski M.J., Skalska U., Smalius D.E.,
 RA Schnarch A., Schein J.E., Jones S.J.M., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
 CC -!- FUNCTION: Ligand for members of the frizzled family of seven
 CC transmembrane receptors. Probable developmental protein. May be a
 CC signaling molecule which affects the development of discrete
 CC regions of tissues. Is likely to signal over only few cell
 CC diameters (By similarity).
 CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
 CC extracellular matrix.
 CC -!- SIMILARITY: Belongs to the Wnt family.

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DR EMBL; AY009399; AAQ38659.1; -;
 DR EMBL; AB009666; BAB02039.1; -;
 DR EMBL; BC001749; AAH01749.1; -;
 DR Genew; HGNC:16265; WNT5B.
 DR H-InvDB; HIX0010319; -;
 DR MIM; 606361; -;
 DR InterPro; IPR005817; Wnt.
 DR InterPro; IPR005816; Wnt_grtfactor.
 DR Pfam; PP00110; wnt_1.
 DR PRINTS; PR01349; WNTPROBIN.
 DR SMART; SM00097; WNT1; 1.
 DR PROSITE; PS00246; WNT1; 1.
 KW Developmental protein; Glycoprotein; Signal; Wnt signaling pathway.

FT SIGNAL 1 17 Potential.

FT CHAIN 18 359 Wnt-5b protein.

FT CARBOHYD 99 99 N-linked (GlcNAc. . .) (Potential).

FT CARBOHYD 291 291 N-linked (GlcNAc. . .) (Potential).

FT CARBOHYD 305 305 N-linked (GlcNAc. . .) (Potential).

FT CONFLICT 73 73 G -> R (In Ref. 1).
 FT CONFLICT 88 88 R -> P (In Ref. 1).
 FT CONFLICT 93 93 N -> K (In Ref. 1).
 FT CONFLICT 134 134 R -> S (In Ref. 1).
 FT CONFLICT 224 224 G -> R (In Ref. 1).
 FT CONFLICT 227 227 S -> R (In Ref. 1).
 SQ SEQUENCE 359 AA; 40323 MW; 6E35BE2B0AF1FD29 CRC64;

Query Match 78.0%; Score 99; DB 1; Length 359;
 Best Local Similarity 80.0%; Pred. No. 1.9e-07;
 Matches 16; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

Qy 1 KAGIQPCQHQPRGRRNCTT 20
 | :| :||| :||| :||| :|
 Db 77 KTGIKECQHQFRQRWNCT 96



providing a cell transfected with a nucleic acid molecule selected from (i) any of 9 fully defined Wnt nucleic acid sequences; (ii) a nucleic acid molecule that hybridises to the nucleic acid in (i); and which encodes a ligand capable of modulating embryonic stem cell differentiation, or capable of binding a Wnt receptor; or (iii) nucleic acid molecules which are degenerate as a result of the genetic code to the sequences of (i) or (ii); (b) forming a culture comprising the cell identified in (a) with an embryonic stem cell; and (c) growing the culture for the maintenance and/or differentiation of the embryonic stem cell; (2) Inhibiting the differentiation of embryonic stem cells, comprising: (a) providing at least one polypeptide or its active fragment, that are inhibitors of the Wnt signalling pathway; (b) forming a culture comprising the cell identified in (a) with an embryonic stem cell; and (c) growing the culture for the maintenance of embryonic stem cells in an undifferentiated state; or (3) Inhibiting the differentiation of embryonic stem cells, comprising: (a) Providing a cell transfected with a nucleic acid molecule selected from: (i) a molecule encoding a Wnt inhibitory polypeptide; (ii) a molecule which hybridises to the molecule of (i) and encodes a polypeptide capable of inhibiting Wnt signalling; (iii) nucleic acid molecules which are degenerate as a result of the genetic code to the sequences of (i) or (ii); (b) forming a culture comprising the cell identified in (a) with an embryonic stem cell; and (c) Growing the culture for the maintenance of embryonic stem cells in an undifferentiated state and (4) A cell, therapeutic cell or cell culture obtainable by any of the methods cited above. The therapeutic cell of the present invention is useful in the treatment of an animal, preferably a human, comprising administering a cell composition comprising embryonic stem cells which have been induced to differentiate into at least one cell-type. The cell is also useful for the manufacture of a composition for use in treatment of diseases such as Parkinson's disease, Huntington's disease, motor neuron disease, heart disease, diabetes, liver disease (e.g. cirrhosis), renal disease and AIDS (acquired immunodeficiency syndrome). The present sequence is represented as a Wnt or Notch pathway protein (i.e. a ligand for the method of the invention).

SQ	Sequence 372 AA;	Query Match	Score 78;	DB 6;	Length 372;
ID	ABU07452 standard; protein; 372 AA.	Best Local Similarity	54.5%;	Pred. No. 0.0079;	Gaps 0;
XX	ABU07452;	Matches 12;	Conservative 6;	Mismatches 4;	Indels 0;
AC					
XX					
RESULT 2					
ABU07452	ABU07452 standard; protein; 372 AA.	Qy 1 REAIREGEENKEPKFERANCSSSD 22	Db 82 REWIRECQHQFRHHRMNCTILD 103		
ID	ABU07452				
XX	XX				
DT	28-JAN-2003 (first entry)				
XX					
DE	Protein differentially regulated in prostate cancer #55.				
XX					
KW	Prostate cancer; gene expression; differential regulation;				
KW	molecular marker; drug target; cancer detection; Cancer diagnosis;				
KW	cancer staging; cancer grading; cancer assessing; cancer monitoring.				
XX					
CS	Homo sapiens.				
XX	WO200281638-A2.				
FN					
XX					
PD	17-OCT-2002.				
XX					
PF	08-APR-2002; 2002WO-US010824.				
XX					
PR	06-APR-2001; 2001US-0281731P.				
XX					
PR	06-APR-2001; 2001US-0281732P.				
XX					
PA	(ORIG-) ORIGENE TECHNOLOGIES INC.				
RESULT 3					
AAE34040	AAE34040 standard; protein; 372 AA.				
ID	AAE34040				
XX	XX				
AC	AAE34040;				
XX	XX				
DT	02-MAY-2003 (first entry)				
XX					
DS	WNT-2B protein.				
XX					
KW	Drug screening; toxicology assay; signalling pathway; WNT-2B protein.				
XX					
OS	Unidentified.				
XX					
PN	WO200290992-A2.				
XX					

PD 14-NOV-2002.
 XX 29-APR-2002; 2002WO-GB001946.
 XX 04-MAY-2001; 2001GB-00011004.
 PR XX (AXOR-) AXORDIA LTD.
 PA XX
 PI Andrews P, Draper J, Walsh J;
 XX DR; WPI; 2003-120579/11.
 DR N-PSDB; AAdd5259.

PT Identifying biologically active agents comprising cloning transfected cells into a cell array, exposing the array to an agent to be tested, and detecting signals generated by a reporter molecule as a result of PT exposure to the agent.
 XX
 PS Claim 16: Fig 29; 90pp; English.

XX The present invention relates to a novel screening method which enables the identification of biologically active agents which mediate their effect through the activation of genes. The method involves providing a population of cells stably transfected with a nucleic acid encoding a reporter molecule, cloning the transfected cells into a cell array, exposing the array to at least one agent to be tested and detecting a signal generated by the reporter molecule as a result of exposure to the agent. The method is useful in identifying biologically active agents and the genes through which the agents act, in screening potential drugs for their ability to activate certain drug targets in a high-throughput assay, in identifying relationships between signalling pathways and specific signals that could be useful in eventually directing the differentiation of embryonic stem cells and in toxicology assays by testing for unwanted activation or inhibition of specific signalling pathways. The present sequence is WNT-2B protein used to illustrate the method of the invention. Note: This sequence is stated to be encoded by WNT-16 DNA shown in figure 28 of the specification. However this does not appear to be the case
 XX Sequence 372 AA;
 SQ Query Match 62.4%; Score 78; DB 6; Length 372;
 Best Local Similarity 54.5%; Pred. No. 0.0079;
 Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

Db RESULT 4
 ADO08177 ID ADO08177 standard; protein; 391 AA.
 AC ADO08177;
 XX DT 15-JUL-2004 (first entry)
 DE Human Wnt-13 Peptide sequence.
 XX Cancer: Wingless-type; Wnt: Frizzled receptor; monoclonal antibody; dishooved, Dvl; proliferation; inhibition; Wnt-1; Wnt-; Frizzled1; Frizzled2; Frizzled; Frizzled4; Frizzled5; Frizzled6; Frizzled7; Frizzled8; Frizzled9; Frizzled10; breast cancer; colorectal cancer; lung cancer; sarcoma; mesothelioma; cervical cancer; ovarian cancer; prostate cancer; pancreatic cancer; gastric cancer; oesophageal cancer; head and neck cancer; hepatocellular carcinoma; melanoma; glioma; glioblastoma; leukaemia; lymphoma.
 XX Homo sapiens.
 OS WO9517416-A1.
 XX PN WO2004032838-A2.
 PN XX
 XX PD 29-JUN-1995.
 XX

PD 22-APR-2004.
 XX 03-OCT-2003; 2003WO-US031384.
 PR 04-OCT-2002; 2002US-0024825.
 PR 31-JUL-2003; 2003US-0491350P.
 XX PA (REGC) UNIV CALIFORNIA.
 XX PI He B, You L, Xu Z, Jablons DM;
 XX DR WPI; 2004-340786/31.
 PS Disclosure; SEQ ID NO 27; 74pp; English.

XX This sequence may be used in the methods of the invention for inhibiting the growth of a cancer cell that overexpresses a Wingless-type (Wnt) protein. The method comprises contacting the cell with an agent that inhibits binding of the Wnt protein to a Frizzled receptor. An anti-Wnt monoclonal antibody described in the specification, specifically binds to a Wnt-1 or Wnt-2 peptide given in the specification
 XX AD008152AD008154AD008155. A further method for screening for an agent that inhibits the proliferation of a cancer cell, comprising contacting the agent with a disheveled (Dvl) protein, determining Dvl protein activity or expression, and identifying a compound that inhibits the Dvl protein or activity, thereby identifying an agent that inhibits the proliferation of a cancer cell. The agent for inhibiting growth of a cancer cell is an antibody, where the antibody specifically binds to the Wnt protein that is a Wnt-1 or Wnt-2. The antibody specifically binds a Frizzled receptor that is a Frizzled1, Frizzled2, Frizzled3, Frizzled4, Frizzled5, Frizzled6, Frizzled7, Frizzled8, Frizzled9, and Frizzled10 receptor. The methods and compositions of the present invention are useful for the diagnosis, prevention and/or treatment of diseases or conditions associated with aberrant expression or activity of the Wnt protein, such as cancer. Preferably a breast cancer, colorectal cancer, a lung cancer, a sarcoma, a mesothelioma, a cervical cancer, an ovarian cancer, a prostate cancer, a pancreatic cancer, a gastric cancer, an oesophageal cancer, a head and neck cancer, a hepatocellular carcinoma, a melanoma, a glioma, a glioblastoma, a leukaemia, or a lymphoma.
 XX Sequence 391 AA;
 SQ Query Match 62.4%; Score 78; DB 8; Length 391;
 Best Local Similarity 54.5%; Pred. No. 0.0083;
 Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

Db Qy 1 REAIRECENKEKFERNCSRRD 22
 82 REWIRECQHQFRHRWNCTLD 103
 Db RESULT 5
 AAR75881 ID AAR75881 standard; protein; 397 AA.
 AC AAR75881;
 XX DT 19-JAN-1996 (First entry)
 XX DB Human Wnt-x.
 KW Wnt-x growth factor; oncoprotein; bone cancer; breast cancer.
 XX OS Homo sapiens.
 PN WO9517416-A1.
 XX
 XX PD 29-JUN-1995.
 XX

PF 19-DEC-1994; 94WO-US014708.
 XX
 PR 22-DEC-1993; 93US-00172365.
 XX
 (MERCK) MERCK & CO INC.
 XX
 PT Rodan GA, Rutledge SJ, Schmidt A;
 PI
 XX
 WPI; 1995-240606/31.
 DR N-PSDB; AA091223.
 XX
 New isolated Wnt-x growth factor protein - used to identify modulators
 PT for use in the treatment of diseases such as cancers.
 XX
 PS Claim 2; Page 35; 43pp; English.
 XX
 DNA encoding Wnt-x was obted. using rat calvaria osteoblastic cells. This
 CC DNA was used to design primers to isolate cDNA encoding human Wnt-x from
 CC a giant cell tumor cell library. The isolated cDNA (given in AA091223)
 CC encodes human Wnt-x (AAU75881) useful for treating disease states
 XX involving Wnt-x activity e.g. bone cancer and breast cancer:
 SQ Sequence 397 AA;
 Query Match 62.4%; Score 78; DB 2; Length 397;
 Best Local Similarity 54.5%; Pred. No. 0.0085;
 Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;
 Qy 1 REAIRECENKEPKPERWCSSRD 22
 Db 101 REWTCQEQFRHWNCTLD 122
 XX
 RESULT 6
 ABRA8501 ID ABRA8501 standard; protein; 129 AA.
 XX
 AC ABRA8501;
 XX DT 13-JUN-2003 (first entry)
 XX Human Soluble activator of Wnt (SAW)-2.
 XX
 KW Human; GENSET; therapeutic; therapy.
 XX
 OS Homo sapiens.
 XX
 PA (GEST) GENSET.
 XX PN WO200294864-A2.
 XX PD 28-NOV-2002.
 XX PR 06-AUG-2001; 2001WO-IB001715.
 XX PP 25-MAY-2001; 2001US-0293574P.
 XX PR 15-JUN-2001; 2001US-0298698P.
 XX PR 29-JUN-2001; 2001US-0302277P.
 XX PR 13-JUL-2001; 2001US-0303456P.
 XX
 PA (GEST) GENSET.
 XX PI Bejanin S, Tanaka H;
 XX DR WPI; 2003-129412/12.
 XX DR N-PSDB; ACC51102.
 XX
 PT New GENSET polynucleotides and polypeptides, useful for preparing a
 PT composition for treating GENSET-related disorders and as reagents in
 PT assays to quantitatively determined levels of GENSET expression in
 PT biological samples.
 XX
 PA (GEST) GENSET.
 XX PI Bejanin S, Tanaka H;
 XX DR WPI; 2003-129412/12.
 XX DR N-PSDB; ACC51108.
 XX
 PT New GENSET polynucleotides and polypeptides, useful for preparing a
 PT composition for treating GENSET-related disorders and as reagents in
 PT assays to quantitatively determined levels of GENSET expression in
 PT biological samples.
 XX
 PA (GEST) GENSET.
 XX PI Bejanin S, Tanaka H;
 XX DR WPI; 2003-129412/12.
 XX DR N-PSDB; ACC51108.
 XX
 PT The present invention relates to novel human GENSET coding sequences
 PT (ACC51060-ACC51115) and Proteins (ABR48153-ABR48508). The GENSET
 PT sequences are useful for preparing a composition for treating GENSET-
 PT related disorders. They can also be used as markers for tissues in which
 PT the corresponding protein is preferentially expressed, as molecular
 PT weight markers on Southern gels, as chromosome markers or tags to
 PT identify chromosomes, and as reagents in assays to quantitatively
 PT determined levels of GENSET expression in biological samples
 XX
 SQ Sequence 131 AA;
 Query Match 61.6%; Score 77; DB 6; Length 131;
 Best Local Similarity 60.0%; Pred. No. 0.0033;
 Matches 4; Mismatches 4; Indels 0; Gaps 0;

PI Ota T, Isogai T, Nishikawa T, Kawai Y, Sugiyama T, Hayashi K;
 XX WPI; 2001-093989/11.
 DR N-PSDB; AAF93886.
 XX

PT Nucleic acids encoding secretory proteins/membrane proteins, useful in
 PT gene therapy or as candidate target molecules in drug development.

PS Claim 1; SEQ ID NO 246; 60pp + Sequence Listing; English.

This invention relates to nucleic acid sequences AAF93744 - AAF93916 which encode human secretory or membrane proteins represented by AAF88317 - AAF88419. Included in the invention are primers AAF3917 - AAF94295 and AAF62332 - AAF62335 which are used to isolate the cDNA sequences of the antibodies directed against the proteins, and cDNA sequences, which can be used in vaccines. The polynucleotide sequences and the proteins they encode may be used in the prevention, treatment and diagnosis of diseases associated with inappropriate secretory protein/membrane protein expression. The nucleic acids and complementary sequences may also be used as DNA probes in diagnostic assays (e.g. polymerase chain reactions (PCR)) to detect and quantitate the presence of similar nucleic acid sequences in samples. They may also be used to study the expression and function of secretory proteins/membrane polypeptides and their role in metabolism. The polypeptides may be used as antigens in the production of antibodies against them and in assays to identify modulators (agonists and antagonists) of expression and activity. The antibodies and antagonists may also be used as therapeutic agents to down regulate expression and activity. The antibodies may also be used as diagnostic agents for detecting the presence of the polypeptides in samples (e.g. by enzyme linked immunosorbent assay (ELISA). Examples of diseases which may be treated include rheumatoid arthritis and diabetes

XX Sequence 365 AA;

Query Match Score 77; DB 4; Length 365;
 Best Local Similarity 60.0%; Pred. No. 0.011; Matches 4; Mismatches 4; Indels 0; Gaps 0;

Qy 1 REAIRECENKPKFERWCSS 20
 Db | :||| :| :| ||| |
 AC 70 RLGVRECQFQFRERWCSS 89

RESULT 13
 ABU55888
 ID ABU55888 standard; protein; 365 AA.
 XX
 AC ABU55888;
 XX DT 25-MAR-2003 (first entry)
 DB Human WNT-6 protein.

XX Notch; Wnt; embryonic stem cell; embryogenesis; human; differentiation; ligand; Parkinson's disease; Huntington's disease; motor neuron disease; heart disease; diabetes; liver disease; cirrhosis; renal disease; AIDS; acquired immunodeficiency syndrome.
 XX Homo sapiens.
 OS WO200277204-A2.
 PN 03-OCT-2002.
 XX 25-MAR-2002; 2002W0-GB001195.
 PR 23-MAR-2001; 2001GB-00007299.
 PR 17-APR-2001; 2001GB-00009346.
 XX PA (AXOR-) AXORDIA LTD.

XX Andrews P, Walsh J, Gokhale P;
 PI XX WPI; 2003-092852/08.
 DR N-PSDB; ABX75316.
 XX PT Modulating the differentiation of embryonic stem cells by providing ligands which bind receptors in the Notch and Wnt pathways, useful for treating diseases such as Parkinson's, Huntington's, heart disease, diabetes and AIDS.
 PS Disclosure; Fig 43; 121pp; English.
 XX CC The invention relates to modulating the differentiation of an embryonic stem cell, comprising: (a) providing a culture of embryonic stem cells; (b) providing at least one ligand or its active binding fragment, capable of binding its cognate receptor polypeptide expressed by the embryonic stem cell; (c) forming a culture comprising embryonic stem cells and the ligand; and (d) growing the cell culture. Also included are: (1) Modulating the differentiation of embryonic stem cells, comprising: (a) providing a cell transfected with a nucleic acid molecule selected from: (i) any of 9 fully defined Wnt nucleic acid sequences; (ii) a nucleic acid molecule that hybridises to the nucleic acid in (i), and which encodes a ligand capable of modulating embryonic stem cell differentiation, or capable of binding a Wnt receptor; (iii) nucleic acid molecules which are degenerate as a result of the genetic code to the sequences of (i) or (ii); (b) forming a culture comprising the cell identified in (a) with an embryonic stem cell; and (c) growing the culture for the maintenance and/or differentiation of the embryonic stem cell; (2) Inhibiting the differentiation of embryonic stem cells, comprising: (a) providing at least one polypeptide or its active fragment, that are inhibitors of the Wnt signalling pathway; (b) forming a culture comprising the cell identified in (a) with an embryonic stem cell; and (c) growing the culture for the maintenance of embryonic stem cells in an undifferentiated state; or (3) Inhibiting the differentiation of embryonic stem cells, comprising: (a) providing a cell transfected with a nucleic acid molecule selected from: (i) a molecule encoding a Wnt inhibitory polypeptide; (ii) a molecule which hybridises to the molecule of (i) and encodes a polypeptide capable of inhibiting Wnt signalling; and (iii) nucleic acid molecules which are degenerate as a result of the genetic code to the sequences of (i) or (ii); (b) forming a culture comprising the cell identified in (a) with an embryonic stem cell; and (c) growing the culture for the maintenance of embryonic stem cells in an undifferentiated state; and (4) A cell, therapeutic cell or cell culture obtainable by any of the methods cited above. The therapeutic cell of the present invention is useful in the treatment of an animal, preferably a human, comprising administering a cell composition comprising embryonic stem cells which have been induced to differentiate into at least one cell-type. The cell is also useful for the manufacture of a composition for use in treatment of diseases such as Parkinson's disease, Huntington's disease, motor neuron disease, heart disease, diabetes, liver disease (e.g. cirrhosis), renal disease and AIDS (acquired immunodeficiency syndrome). The present sequence is represents a Wnt or Notch pathway protein (i.e. a ligand for the method of the invention)

XX SQ Sequence 365 AA;

Query Match Score 77; DB 6; Length 365;
 Best Local Similarity 60.0%; Pred. No. 0.011; Matches 4; Mismatches 4; Indels 0; Gaps 0;

Qy 1 REAIRECENKPKFERWCSS 20
 Db | :||| :| :| ||| |
 XX RESULT 14
 AD008168
 ID AD008168 standard; protein; 365 AA.
 XX AC AD008168;
 XX DT 15-JUL-2004 (first entry)

XX SQ Sequence 365 AA;

Query Match Score 77; DB 6; Length 365;
 Best Local Similarity 60.0%; Pred. No. 0.011; Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

Qy 1 REAIRECENKPKFERWCSS 20
 Db | :||| :| :| ||| |
 XX 70 RLGVRECQFQFRERWCSS 89

XX SQ Sequence 365 AA;

Query Match Score 77; DB 6; Length 365;
 Best Local Similarity 60.0%; Pred. No. 0.011; Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

Qy 1 REAIRECENKPKFERWCSS 20
 Db | :||| :| :| ||| |
 XX 70 RLGVRECQFQFRERWCSS 89

XX SQ Sequence 365 AA;

Query Match Score 77; DB 6; Length 365;
 Best Local Similarity 60.0%; Pred. No. 0.011; Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

Qy 1 REAIRECENKPKFERWCSS 20
 Db | :||| :| :| ||| |
 XX 70 RLGVRECQFQFRERWCSS 89

XX Human Wnt-6 peptide sequence.

XX cancer; Wingless-type; Wnt; Frizzled receptor; monoclonal antibody; XX dishnavel; Dvl; proliferation; inhibition; Wnt-1; Wnt-; Frizzled1; XX Frizzled2; Frizzled; Frizzled4; Frizzled5; Frizzled6; Frizzled7; XX Frizzled8; Frizzled9; Frizzled10; breast cancer; colorectal cancer; lung cancer; sarcoma; mesothelioma; cervical cancer; ovarian cancer; XX prostate cancer; pancreatic cancer; oesophageal cancer; head and neck cancer; hepatocellular carcinoma; melanoma; glioma; XX Glioblastoma; leukaemia; lymphoma.

XX Homo sapiens.

XX WO2004032838-A2.

XX PN WO2004042028-A2.

XX PD 22-APR-2004.

XX PP 03-OCT-2003; 2003WO-US031384.

XX PR 04-OCT-2004; 2002US-00264825.

XX PR 31-JUL-2003; 2003US-0491350P.

XX PA (REGC) UNIV CALIFORNIA.

XX PI He B., You L., Xu Z., Jablons DM;

XX DR 2004-400672/37.

XX DR N-PSDB; ADO22230;

XX PT Inhibiting the proliferation or survival of breast cancer or leukemic cells, for treating breast cancer, leukemia, by contacting the cancer cells with an agent that inhibits the Wnt/Fzd signalling pathway in the cancer cells.

XX Disclosure; Page 133; 156pp; English.

XX PS This sequence may be used in the methods of the invention for inhibiting the growth of a cancer cell that overexpresses a Wingless-type (Wnt) protein. The method comprises contacting the cell with an agent that inhibits binding of the Wnt protein to a Frizzled receptor. An anti-Wnt monoclonal antibody described in the specification, specifically binds to a Wnt-1 or Wnt-2 Peptide given in the specification.

XX A further method for screening for an agent that inhibits the proliferation of a cancer cell, comprising contacting the agent with a disheveled (Dvl) protein, determining Dvl protein activity or expression, and identifying a compound that inhibits Dvl protein or activity, thereby identifying an agent that inhibits the proliferation of a cancer cell. The agent for inhibiting growth of a cancer cell is an antibody, where the antibody specifically binds to the Wnt protein that is a Wnt-1 or Wnt-2. The antibody specifically binds a Frizzled receptor that is a Frizzled7, Frizzled8, Frizzled9, and Frizzled10 receptor. The methods and compositions of the present invention are useful for the diagnosis, prevention and/or treatment of diseases or conditions associated with aberrant expression or activity of the Wnt protein, such as cancer, preferably a breast cancer, colorectal cancer, a lung cancer, a sarcoma, a mesothelioma, a cervical cancer, an ovary cancer, a prostate cancer, a pancreatic cancer, a gastric cancer, an oesophageal cancer, a head and neck cancer, a hepatocellular carcinoma, a melanoma, a glioma, a glioblastoma, a leukaemia, or a lymphoma.

XX Sequence 365 AA;

XX Query Match 61.6%; Score 77; DB 8; Length 365;

XX Best Local Similarity 60.0%; Pred. No. 0.011; Mismatches 4; Indels 0; Gaps 0;

XX Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

Qy 1 REAIRECENKEPKPERWNCS 20

Db 70 RLGVRECQFQRFRWNCS 89

Search completed: March 31, 2005, 02:53:06

Job time : 125.5 secs

GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.							
OM protein - protein search, using sw model							
Run on: March 31, 2005, 02:42:39 ; Search time 27 Seconds 78.399 Million cell updates/sec (without alignments)							
Title: US-10-816-720-4							
Perfect score: 125							
Sequence: 1 REAIRECENKFKFERNWCSSRD 22							
Scoring table: BLOSUM62							
Gapop 10.0 , Gapext 0.5							
Searched: 283416 seqs, 96216763 residues							
Total number of hits satisfying chosen parameters:	283416						
Minimum DB seq length: 0							
Maximum DB seq length: 2000000000							
Post-processing: Minimum Match 0%							
Maximum Match 100%							
Database : Listing First 45 summaries							
Database :	PIR 79:*						
1: Pirl1:*							
2: pir2:*							
3: pir3:*							
4: Pir4:*							
Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.							
SUMMARIES							
Result No.	Score	Query Match	Length	DB ID	Description		
- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
1	125	100.0	398	2 T26284	hypothetical prote		
2	78	62.4	372	2 T09612	secreted glycoprot		
3	77	61.6	364	2 P36470	Wnt-6 protein - mo		
4	77	61.6	365	2 JC7694	solute-type glyco		
5	74	59.2	360	2 S34173	wnt-5c protein - A		
6	72	57.6	372	2 D36470	Wnt-5b protein - m		
7	72	57.6	417	2 JC7693	solute-type glyco		
8	72	57.6	417	2 B39392	Wnt-10a protein pro	RESULT 2	
9	72	57.6	468	2 A29650	wingless (wg) prot	T09612	
10	72	57.6	469	1 TVFFT1	transforming prote		
11	71	56.8	1004	2 A48821	Wnt-5 protein - fr		
12	70	56.0	442	2 P51110	Wnt11a protein - z		
13	69	55.2	357	2 B56549	cell-cell signalain		
14	68	54.4	349	2 H336470	Wnt-7b protein - m		
15	68	54.4	351	2 C2451	Cwnt-4 protein pre		
16	68	54.4	351	2 C36470	Wnt-4 protein - mo		
17	68	54.4	352	2 A49146	developmental requ		
18	68	54.4	359	2 A56549	cell-cell signalain		
19	68	54.4	365	2 A48914	proto-oncogene Wnt		
20	68	54.4	379	2 D36470	Wnt-5a protein - m		
21	65	52.0	360	2 T26037	hypothetical prote		
22	65	52.0	360	2 S32695	Wnt-2 protein - Ca		
23	64	51.2	333	2 A47536	gene WNT3 protein		
24	64	51.2	355	2 A35053	Wnt-3 protein - mo		
25	63	50.4	354	2 JC4152	Wnt-11 protein pre		
26	62	49.6	134	2 J50729	gene Wnt-1 protein		
27	62	49.6	352	2 A39532	Wnt-1A protein - m		
28	62	49.6	389	2 I49263	Potential oncogene		
29	62	49.6	389	2 A59392	Wnt10b protein pre		
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					RESULT 1		
					T26284		
					hypothetical protein W08D2.1 - Caenorhabditis elegans		
					C;Species: Caenorhabditis elegans		
					C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 21-Jan-2000		
					C;Accession: T26284		
					R;Swinburne, J.; Ainscough, R.		
					A;Submitted to the ENB Data Library, March 1996		
					A;Reference number: Z20188		
					A;Accession: T26284		
					A;Molecule type: DNA		
					A;Residues: 1-398 <WIL>		
					A;Cross-references: EMBL:Z70271; PIDN:CAA94237.1; GSPDB:GN00022; CESP:W08D2.1		
					A;Experimental source: clone W08D2.1		
					C;Genetics:		
					A;Map position: 4		
					A;Gene: CESP:W08D2.1		
					C;Superfamily: int-1 transforming protein		
					Query Match	100.0%	Score 125;
					Matches 22;	Local Similarity 100.0%;	DB 2;
					Conservative 0;	Mismatches 0;	Length 398;
					Indels 0;	Gaps 0;	
					Qy	1 REAIRECENKFKFERNWCSSRD	
						22	
					Db	93 REAIRECENKFKFERNWCSSRD	
						114	
							RESULT 2
							T09612
							secreted glycoprotein Wnt-13 - human
							C;Species: Homo sapiens (man)
							C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 21-Jul-2000
							C;Accession: T09612
							R;Katch, M.; Hirai, M.; Sugimura, T.; Terada, M.
							Oncogene 13, 873-876, 1996
							A;Title: Cloning, expression and chromosomal localization of Wnt-13, a novel member of the Wnt gene family
							A;Reference number: Z16773; PMID:96358637; PMID:8761309
							A;Accession: T09612
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							A;Residues: 1-372 <RAT>
							A;Cross-references: EMBL:Z71621; NID:G1524104; PIDN:CAA96283.1; PID:G1524105
							C;Genetics:
							A;Map position: 1p13
							C;Superfamily: int-1 transforming protein
					Query Match	62.4%	Score 78;
					Best Local Similarity	54.5%;	DB 2;
							Length 372;
							Pred. No. 0.00052;

Matches 12; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

A; Reference number: S34173
A; Accession: S34173
A; Molecule type: mRNA
A; Residues: 1-360 <KOS>
A; Cross-references: UNIPROT:P33945; EMBL:X73510; NID:9313267; PID:CRAS196-1; R: Kuiken, G.A.; Bertens, P.J.A.; Peterson-Maduro, J.; Veenstra, G.J.C.; Det Nucleic Acids Res. 22, 1675-1680, 1994
A; Title: The promoter of the Xwnt-5C gene contains octamer and AP-2 motifs functional in A; Reference number: S45242; MUID:9426437; PMID:8202371
A; Accession: S45242
A; Molecule type: DNA
A; Residues: 1-28 <KU1>
C; Superfamily: int-1 transforming protein

RESULT 3
P34170
Wnt-6 protein - mouse
C;Species: Mus musculus (house mouse)
C;Date: 19-Apr-1991 #sequence_revision 19-Apr-1991 #text_change 09-Jul-2004
C;Accession: P16470
R:Gavin, B.J.; McMahon, J.A.; McMahon, A.P.
Genes Dev. 4, 2319-2332, 1990
A;Title: Expression of multiple novel Wnt-1/int-1-related genes during fetal and adult m
A;Reference number: A36470; MUID:9112634; PMID:2279700
A;Accession: P16470
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-364 <GAV>
A;Cross-references: UNIPROT:P22727; GB:M898000; NID:9202407; PIDN:AAA40569-1; PMID:9202408
C;Superfamily: int-1 transforming protein

Query Match 61.6%; Score 77; DB 2; Length 364;
Best Local Similarity 60.0%; Pred. No. 0.00071; Mismatches 4; Indels 0; Gaps 0;
Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

Query 1 REAIRECENKPKFERWNCSRD 20
Db 69 RLGVRECQFQRFRWNCS 88

RESULT 4
JC7694
soluble-type glycoprotein WNT6 - human
C;Species: Homo sapiens (man)
C;Date: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 09-Jul-2004
C;Accession: JC7694
R:Kirikoshi, H.; Sekihara, H.; Katoch, M.
Biochem. Biophys. Res. Commun. 283, 798-805, 2001
A;Title: WNT10A and WNT6, clustered in human chromosome 2q35 region with head-to-tail ma
A;Reference number: JC7693; MUID:11350055
A;Accession: JC7694
A;Molecule type: mRNA
A;Residues: 1-365 <KIR>
A;Cross-references: UNIPROT:Q9Y6F9; DDBJ:AB059570
C;Comment: This protein plays key roles in human carcinogenesis through activation of WNT
ly coexpressed in colorectal cancer cell line SW480.
C;Genetics:

A;Gene: Wnt6
A;Map position: 2q35
C;Superfamily: int-1 transforming protein
C;Keywords: carcinogenesis; glycoprotein

Query Match 61.6%; Score 77; DB 2; Length 365;
Best Local Similarity 60.0%; Pred. No. 0.00072; Mismatches 4; Indels 0; Gaps 0;

Query 1 REAIRECENKPKFERWNCS 20
Db 70 RLGVRECQFQRFRWNCS 89

RESULT 5
S34173
wnt-5c protein - African clawed frog
C;Species: Xenopus laevis (African clawed frog)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Accession: S34173; S45242
R:Koster, J.G.; Kuiken, G.A.; Stegeman, B.; Peterson, J.; Buzema, K.; Stabel, L.; Dekker submitted to the EMBL Data Library, June 1993
A;Description: Differential Xwnt-5C expression during early development of Xenopus laevis

A; Reference number: AAA40568-1; PMID:g202405; PIDN:989799; NID:9313268
A; Cross-references: UNIPROT:Q91XFS; GB:M89799; C; Date: 19-Apr-1991 #sequence_revision 19-Apr-1991 #text_change 09-Jul-2004
C;Accession: B36470
R:Gavin, B.J.; McMahon, J.A.; McMahon, A.P.
Genes Dev. 4, 2319-2332, 1990
A;Title: Expression of multiple novel Wnt-1/int-1-related genes during fetal and adult m
A;Accession number: A36470; MUID:9112634; PMID:2279700
A; Accession: B36470
A; Status: preliminary
A; Molecule type: mRNA
A; Residues: 1-372 <GAV>
A; Cross-references: UNIPROT:Q91XFS; GB:M89799; C; Date: 19-Apr-1991 #sequence_revision 19-Apr-1991 #text_change 09-Jul-2004
C;Accession: JCT693
R:Kirikoshi, H.; Sekihara, H.; Katoch, M.
Biochem. Biophys. Res. Commun. 283, 798-805, 2001
A;Title: WNT10A and WNT6, clustered in human chromosome 2q35 region with head-to-tail mar
A;Reference number: JC7693; MUID:21248387; PMID:11350055
A;Accession: JCT693
A;Molecule type: mRNA
A;Residues: 1-417 <KIR>
A;Cross-references: UNIPROT:Q9GZT5; DDBJ:AB059569
C;Comment: This protein plays key roles in human carcinogenesis through activation of WNT
coexpressed in colorectal cancer cell line SW480.
C;Genetics:
A;Gene: Wnt10A
A;Map position: 2q35
C;Superfamily: int-1 transforming protein
C;Keywords: carcinogenesis; glycoprotein

Query Match 57.6%; Score 72; DB 2; Length 372;
Best Local Similarity 50.0%; Pred. No. 0.0041; Mismatches 6; Indels 0; Gaps 0;

Query 1 REAIRECENKPKFERWNCSRD 22
Db 90 RLGVIRECQFQRFRWNCS 111

RESULT 8
B59392
Wnt10a protein precursor - mouse
C;Species: Mus musculus (house mouse)
C;Date: 03-Aug-2001 #sequence_revision 03-Aug-2001 #text_change 09-Jul-2004
C;Accession: B59392
R;Wang, J.; Shackleford, G.M.
Oncomine 13, 1537-1544, 1996
A;Title: Murine Wnt10a and Wnt10b: cloning and expression in developing limbs, face and
A;Reference number: A59392; PMID:96269404; PMID:8875932
A;Accession: B59392
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-417 <WAN>
A;Cross-references: UNIPROT:P70701; GB:U61961; NID:9146012; PMID:92501665; PMID:AA080805
A;Note: Proto-oncogene, potential transforming capacity, secreted protein, developmental
C;Superfamily: int-1 transforming protein
F;37-417/Product: Wnt10a protein #status predicted <WNT>
Query Match 57.6%; Score 72; DB 2; Length 417;
Best Local Similarity 61.1%; Pred. No. 0.0045;
Matches 11; Conservative 5; Mismatches 2; Indels 0; Gaps 0;
Qy 3 AIRECENKPFERWNCCSS 20
Db 92 AIHECOHQFDQRWNCCSS 109

RESULT 9
A29550
wingless (wg) protein precursor - fruit fly (Drosophila melanogaster)
N;Alternate names: int-1 homolog (Dint-1)
C;Species: Drosophila melanogaster
C;Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 09-Jul-2004
C;Accession: S41157
R;Rijsewijk, F.; Schuermann, M.; Wagenaar, E.; Parren, P.; Weigl, D.; Nusse, R.
Cell 50, 649-657, 1987
A;Title: The Drosophila homolog of the mouse mammary oncogene int-1 is identical to the
A;Reference number: A29550; PMID:8727328; PMID:3111720
A;Accession: A29550
A;Molecule type: mRNA
A;Residues: 1-468 <RIJ>
A;Cross-references: UNIPROT:P09615; GB:MI7230; NID:9157765; PID:AAA28647.1; PID:9157766
R;van den Heuvel, M.; Harryman-Samoa, C.; Klingensmith, J.; Perrimon, N.; Nusse, R.
EMBO J. 12, 593-592, 1993
A;Title: Mutations in the segment polarity genes wingless and porcupine impair secretion
A;Reference number: S41671; PMID:34085405; PMID:9262072
A;Accession: S41671
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: nucleic acid
A;Residues: 1-468 <VAN>
R;Ngay, L.M.; Carroll, S.
Nature 367, 460-463, 1994
A;Title: Conservation of wingless patterning functions in the short-germ embryos of Trib
A;Reference number: S41556; PMID:94150623; PMID:9107884
A;Accession: S41157
A;Status: not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 101-468 <NGAG>
C;Genetics:
A;Gene: FlyBase:wg
A;Cross-references: FlyBase:FBgn004009
C;Superfamily: int-1 transforming protein
C;Keywords: glycoprotein

RESULT 10
TVFFNL
transforming protein int-1 - fruit fly (Drosophila melanogaster)
C;Species: Drosophila melanogaster
C;Date: 30-Jun-1991 #sequence_revision 30-Jun-1991 #text_change 16-Feb-1997
C;Accession: A31337
R;Uzvoelgyi, B.; Kiss, I.; Pitt, A.; Arsenian, S.; Ingvarsson, S.; Udvardy, A.; Hamada, I.
Proc. Natl. Acad. Sci. U.S.A. 85, 3034-3038, 1988
A;Title: Drosophila homolog of the murine int-1 protooncogene.
A;Reference number: A31337; PMID:88203634; PMID:1129722
A;Accession: A31337
A;Molecule type: mRNA
A;Residues: 1-469 <UZV>
C;Genetics:
A;Cross-references: FlyBase:FBgn004009
C;Keywords: glycoprotein; oncogene; transforming protein
C;Superfamily: int-1 transforming protein
A;Gene: int-1
F;49,103,108,415/Binding site: carbohydrate (Asn) (covalent) #status predicted
Query Match 57.6%; Score 72; DB 1; Length 469;
Best Local Similarity 55.0%; Pred. No. 0.005;
Matches 11; Conservative 6; Mismatches 3; Indels 0; Gaps 0;
Qy 3 AIRECENKPFERWNCCSD 22
Db 89 AISECOHQFRNRWNCCSTRN 108

RESULT 11
A48821
Wnt-5 protein - fruit fly (Drosophila melanogaster)
N;Alternate names: intercellular signaling protein Dwt-5
C;Species: Drosophila melanogaster
C;Date: 01-Mar-1993 #sequence_revision 01-Mar-1996 #text_change 09-Jul-2004
C;Accession: A48821; S27815
R;Eisenberg, L.M.; Ingham, P.W.; Brown, A.M.
Dev. Biol. 154, 73-83, 1992
A;Title: Cloning and characterization of a novel Drosophila Wnt gene, Dwt-5, a putative
A;Reference number: A48821; PMID:93050786; PMID:1358729
A;Accession: A48821
A;Contacts: embryo
A;Cross-references: FlyBase:Wnt5
A;Genetics:
A;Gene: FlyBase:Wnt5
A;Cross-references: FlyBase:FBgn0010194
Query Match 56.8%; Score 71; DB 2; Length 1004;
Best Local Similarity 60.0%; Pred. No. 0.014;
Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
Qy 1 REAIRCENKPFERWNCCS 20
Db 577 RAAIQCQFOQFCNRWNCCST 596

RESULT 12
IS0110
Wnt10a protein - zebra fish
C;Species: Brachydanio rerio (zebra fish)

Qy 4 IRECENKPKFERWNCCS 20
 Db 70 IDECOHQFRGRWNCSA 86

RESULT 15
 JC2451 Cwt-4 protein precursor - chicken
 C;Species: Gallus gallus (chicken)
 C;Date: 21-Mar-1995 #sequence_revision 26-May-1995 #text_change 03-May-1996
 C;Accession: JC2451
 R;Yoshioka, H.; Ohuchi, H.; Nobuo, T.; Fujiwara, A.; Tanda, N.; Kawakami, Y.; No
 Biochem. Biophys. Res. Commun. 203, 1581-1588, 1994.
 A;Title: Regional expression of the Cwt-4 gene in developing chick central nervous system
 A;Reference number: JC2451; MUID:7945308; PMID:795032034;

Qy 56.0%; Score 70; DB 2; Length 442;
 Db Best Local Similarity 61.1%; Fred. No. 0.0094; Mismatches 4; Indels 0; Gaps 0;
 C;Superfamily: int-1 transforming protein
 Query Match 3 AIRECENKPKFERWNCCS 20
 Db 129 AIHECOHQFRGRWNCCS 146

RESULT 13
 B56549 cell-cell signalling molecule Axnt-5B precursor - axolotl
 C;Species: Ambystoma mexicanum (axolotl)
 C;Date: 21-Jul-1995 #sequence_revision 21-Jul-1995 #text_change 09-Jul-2004
 C;Accession: B56549; S25000
 R;Busse, U.; Seguin, C.
 Mech. Dev. 40, 63-72, 1993
 A;Title: Isolation of cDNAs for two closely related members of the axolotl Wnt family.
 A;Reference number: A56549; MUID:93183769; PMID:8443107
 A;Status: preliminary
 A;Molecule type: mRNA
 A;Cross-references: UNIPROT:Q06443; EMBL:Z14048; PIDN:CAA78416.1; PID:g62429
 A;Experimental source: embryo
 C;Superfamily: int-1 transforming protein
 Query Match 55.2%; Score 69; DB 2; Length 357;
 Db Best Local Similarity 50.0%; Fred. No. 0.011; Mismatches 5; Indels 0; Gaps 0;
 C;Superfamily: int-1 transforming protein
 Query Match 1 REAIRECENKPKFERWNCCS 22
 Db 75 RTGIKSCQQFKQRWNCCSTVD 96

RESULT 14
 H36470 Wnt-7b protein - mouse
 C;Species: Mus musculus (house mouse)
 C;Date: 19-Apr-1991 #sequence_revision 19-Apr-1991 #text_change 09-Jul-2004
 C;Accession: H36470
 R;Gavin, B.J.; McMahon, J.A.; McMahon, A.P.
 Genes Dev. 4, 2319-2332, 1990
 A;Title: Expression of multiple novel Wnt-1/int-1-related genes during fetal and adult m
 A;Accession: H36470
 A;Status: preliminary
 A;Molecule type: mRNA
 A;Cross-references: UNIPROT:P28047; GB:1M9802; PIDN:AAA40571.1; PID:g202412
 C;Superfamily: int-1 transforming protein
 Query Match 54.4%; Score 68; DB 2; Length 349;
 Db Best Local Similarity 58.8%; Pred. No. 0.015; Mismatches 5; Indels 0; Gaps 0;

Scoring table:	BLOSUM62	Alignments	
Gapop:	10.0	Gapext: 0.5	
Searched:	1612378 seqs,	512079187 residues	
Total number of hits satisfying chosen parameters:	1612378		
Minimum DB seq length:	0		
Maximum DB seq length:	2000000000		
Post-processing:	Minimum Match 0%		
	Maximum Match 100%		
	Listing first 45 summaries		
Database :	UniProt 03: 1: uniprot_sprot;* 2: uniprot_trembl;*		
Pred. No.	is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.		
SUMMARIES			
Result No.	Score	Query Match Length DB ID	Description
1	125	100.0 393 2 Q9TVJ1	Q9tvj1 caenorhabditis elegans
2	78	62.4 125 2 Q70427	Q70427 meriones unicolor
3	78	62.4 263 2 Q8HXD3	Q8hx d3 macaca fasciata
4	78	62.4 311 2 Q9QXK5	Q9qxk5 rattus norvegicus
5	78	62.4 351 1 WN2B_XENLA	P87387 xenopus laevis
6	78	62.4 389 1 WN2B_MOUSE	070263 mus musculus
7	78	62.4 391 1 WN2B_HUMAN	093097 homo sapiens
8	77	61.6 364 2 Q802M9	P22777 mus musculus
9	77	61.6 364 2 Q802M9	0802m9 mus musculus
10	77	61.6 365 1 WN16_HUMAN	Q9y6f9 homo sapiens
11	77	61.6 365 2 QBN2E5	Q8n2e5 homo sapiens
12	77	61.6 392 1 WN11_BOMMO	P49310 bombyx mori
13	75	60.0 315 2 Q9PUT3	Q9pu13 gallus gallus
14	75	60.0 385 2 Q9BSN7	P33395 xenopus laevis
15	74	59.2 360 1 WN5C_XENLA	Q6d10 xenopus tropicalis
16	74	59.2 360 2 Q6D10	Q8ws75 branchiostoma
17	74	59.2 360 2 Q7TOM2	Q8ayb9 brachydanio
18	74	59.2 387 2 Q8AYB9	Q7q111 anophelis gambiae
19	74	59.2 393 2 QTQ1L1	P79856 pleurodeles waltli
20	73	58.4 389 2 Q79856	P22726 mus musculus
21	72	57.6 359 1 WN5B_MOUSE	Q8ws75 branchiostoma
22	72	57.6 370 2 Q8WS75	Q8ayb9 brachydanio
23	72	57.6 415 2 Q8IP11	Q8ip11 drosophila melanogaster
24	72	57.6 417 1 WN1A_HUMAN	Q9g251 homo sapiens
25	72	57.6 417 1 WN1A_MOUSE	P70711 mus musculus
26	72	57.6 468 1 WN1G_DROME	P09615 drosophila melanogaster
27	71	56.8 330 2 Q8MZJ3	Q8mzj3 myrmica americana
28	71	56.8 337 2 Q8MZJ4	Q8mzj4 crematogaster schmidti
29	71	56.8 359 1 WN5B_HUMAN	Q9hj17 homo sapiens
30	71	56.8 1004 1 WN15_DROME	P28466 drosophila melanogaster
31	70	56.0 309 1 WN18_DROME	Q9vfx1 drosophila melanogaster

Query Match Similarity 100.0%; Score 125; DB 2; Length 391;
 Best Local Similarity 100.0%; Pred. No 1.8e-10; Indels 0; Gaps 0;
 Matches 22; Conservative 0; Mismatches 0;

Db 93 REAIRCENKEPKFERNCNSRD 22

Db 93 REAIRCENKEPKFERNCNSRD 114

RESULT 2

Q70427 PRELIMINARY; PRT; 125 AA.
 ID Q70427
 AC Q70427
 DT 05-JUL-2004 (T-TREMBLrel. 27, Created)
 DT 05-JUL-2004 (T-TREMBLrel. 27, Last sequence update)
 DT 05-JUL-2004 (T-TREMBLrel. 27, Last annotation update)
 DB WNT2b protein (Fragment).
 GN Name=wnt2b;
 OS Meriones unguiculatus (Mongolian jird) (Mongolian gerbil).
 OC Eukaryota; Metazoa; Chordata; Craniata; Euteleostomi;
 Mammalia; Butheria; Rodentia; Muridae; Gerbillinae;
 Meriones.
 OC NCBI_TaxID=10047;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Brain; PRT; 125 AA.

RA Loehr H.B.; Submitted (JAN-2004) to the ENSEMBL/GenBank/DBJU databases.

CC -!- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors (By similarity).

CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the extracellular matrix (By similarity).

CC -!- SIMILARITY: Belongs to the Wnt family.

DR EMBL: AJ620337; CAF:AJ921.1;

DR GO: 0005576; C:extracellular; IEA.

DR GO: 0004871; :signal transducer activity; IEA.

DR GO: 0007275; P:development; IEA.

DR InterPro: IPR005817; Wnt_9rthfactor.

DR InterPro: IPR005816; Wnt.

DR Pfam: PF00110; wnt_1.

DR SMART: SM00097; WNTPROTEIN.

DR SEQNCNEBNKFPERNCNSRD 22

DR SEQNCNEBNKFPERNCNSRD 122

DR 101 REWIRECQHOFRRHWNCTLD 122

DR 101 REWIRECQHOFRRHWNCTLD 122

DR NCBI_TaxID=10116;

DR RN [1]

RP SEQUENCE FROM N.A.

RC STRAIN=Sprague-Dawley; TISSUE=Ovary; PRT; 311 AA.

AC Q9QKX5; PRELIMINARY; PRT; 311 AA.

ID Q9QKX5; PRELIMINARY; PRT; 311 AA.

AC Q9QKX5; PRELIMINARY; PRT; 311 AA.

ID Q9QKX5; PRELIMINARY; PRT; 311 AA.

DT 01-MAY-2000 (TREMBLrel. 13, Created)

DT 01-MAY-2000 (TREMBLrel. 13, Last sequence update)

DT 01-MAR-2004 (TREMBLrel. 26, Last annotation update)

DB Rat2b protein (Fragment).

OS Eukaryota; Metazoa; Chordata; Craniata; Chordata; Vertebrata; Buteleostomi; Mammalia; Butheria; Rodentia; Muridae; Murinae; Rattus.

OC NCBI_TaxID=10116;

OX RN [1]

RP SEQUENCE FROM N.A.

RC STRAIN=Sprague-Dawley; TISSUE=Ovary; PRT; 311 AA.

AC Q9HXD3; PRELIMINARY; PRT; 263 AA.

ID Q9HXD3; PRELIMINARY; PRT; 263 AA.

DT 01-MAR-2003 (T-TREMBLrel. 23, Created)

DT 01-MAR-2003 (T-TREMBLrel. 23, Last sequence update)

DT 01-MAR-2004 (T-TREMBLrel. 26, Last annotation update)

DB Hypothetical protein.

OS Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Cercopithecidae; Cercopithecinae; Macaca.

OC NCBI_TaxID=9541;

[1]

RN SEQUENCE FROM N.A.

RC TISSUE=Frontal lobe left; PRT; 125 AA.

AC Hidamoto K., Osada N., Hida M., Kubuda J., Sugano S.;

RA Submitted (OCT-2002) to the EMBL/GenBank/DBJU databases.

RA MEDLINE=145851; PubMed=11574149; DOI=10.1016/S0378-1119(01)00665-5;

RA Osada N., Hida M., Kubuda J., Tanuma R., Iseki K., Hirata M., Suto Y.,

RA Hirai M., Terao K., Suzuki Y., Sugano S., Hashimoto K.;

RA "Assignment of 118 novel cDNAs of cynomolgus monkey brain to human chromosomes."

RT Gene 275:31-37(2001).

RL RN

RP SEQUENCE FROM N.A.

RC TISSUE=Frontal lobe left; PRT; 125 AA.

AC Hidamoto K., Osada N., Hida M., Kubuda J., Sugano S.;

RA Submitted (OCT-2002) to the EMBL/GenBank/DBJU databases.

RA MEDLINE=145851; PubMed=11574149; DOI=10.1016/S0378-1119(01)00665-5;

RA Osada N., Hida M., Kubuda J., Tanuma R., Iseki K., Hirata M., Suto Y.,

RA Hirai M., Terao K., Suzuki Y., Sugano S., Hashimoto K.;

RA "Assignment of 118 novel cDNAs of cynomolgus monkey brain to human chromosomes."

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RA MEDLINE=145851; PubMed=11574149; DOI=10.1016/S0378-1119(01)00665-5;

RA Osada N., Hida M., Kubuda J., Tanuma R., Iseki K., Hirata M., Suto Y.,

RA Hirai M., Terao K., Suzuki Y., Sugano S., Hashimoto K.;

RA "Assignment of 118 novel cDNAs of cynomolgus monkey brain to human chromosomes."

RT Gene 275:31-37(2001).

RL RN

RP SEQUENCE FROM N.A.

RC TISSUE=Frontal lobe left; PRT; 125 AA.

AC Hidamoto K., Osada N., Hida M., Kubuda J., Sugano S.;

RA Submitted (OCT-2002) to the EMBL/GenBank/DBJU databases.

RA MEDLINE=145851; PubMed=11574149; DOI=10.1016/S0378-1119(01)00665-5;

RA Osada N., Hida M., Kubuda J., Tanuma R., Iseki K., Hirata M., Suto Y.,

RA Hirai M., Terao K., Suzuki Y., Sugano S., Hashimoto K.;

RA "Assignment of 118 novel cDNAs of cynomolgus monkey brain to human chromosomes."

RT Gene 275:31-37(2001).

RL RN

RP SEQUENCE FROM N.A.

RC TISSUE=Frontal lobe left; PRT; 125 AA.

AC Hidamoto K., Osada N., Hida M., Kubuda J., Sugano S.;

RA Submitted (OCT-2002) to the EMBL/GenBank/DBJU databases.

RA MEDLINE=145851; PubMed=11574149; DOI=10.1016/S0378-1119(01)00665-5;

RA Osada N., Hida M., Kubuda J., Tanuma R., Iseki K., Hirata M., Suto Y.,

RA Hirai M., Terao K., Suzuki Y., Sugano S., Hashimoto K.;

RA "Assignment of 118 novel cDNAs of cynomolgus monkey brain to human chromosomes."

RT Gene 275:31-37(2001).

RL RN

RP SEQUENCE FROM N.A.

RC TISSUE=Frontal lobe left; PRT; 125 AA.

AC Hidamoto K., Osada N., Hida M., Kubuda J., Sugano S.;

RA Submitted (OCT-2002) to the EMBL/GenBank/DBJU databases.

RA MEDLINE=145851; PubMed=11574149; DOI=10.1016/S0378-1119(01)00665-5;

RA Osada N., Hida M., Kubuda J., Tanuma R., Iseki K., Hirata M., Suto Y.,

RA Hirai M., Terao K., Suzuki Y., Sugano S., Hashimoto K.;

RA "Assignment of 118 novel cDNAs of cynomolgus monkey brain to human chromosomes."

RT Gene 275:31-37(2001).

RL RN

RP SEQUENCE FROM N.A.

RC TISSUE=Frontal lobe left; PRT; 125 AA.

AC Hidamoto K., Osada N., Hida M., Kubuda J., Sugano S.;

RA Submitted (OCT-2002) to the EMBL/GenBank/DBJU databases.

RA MEDLINE=145851; PubMed=11574149; DOI=10.1016/S0378-1119(01)00665-5;

RA Osada N., Hida M., Kubuda J., Tanuma R., Iseki K., Hirata M., Suto Y.,

RA Hirai M., Terao K., Suzuki Y., Sugano S., Hashimoto K.;

RA "Assignment of 118 novel cDNAs of cynomolgus monkey brain to human chromosomes."

RT Gene 275:31-37(2001).

RL RN

RP SEQUENCE FROM N.A.

RC TISSUE=Frontal lobe left; PRT; 125 AA.

AC Hidamoto K., Osada N., Hida M., Kubuda J., Sugano S.;

RA Submitted (OCT-2002) to the EMBL/GenBank/DBJU databases.

RA MEDLINE=145851; PubMed=11574149; DOI=10.1016/S0378-1119(01)00665-5;

RA Osada N., Hida M., Kubuda J., Tanuma R., Iseki K., Hirata M., Suto Y.,

RA Hirai M., Terao K., Suzuki Y., Sugano S., Hashimoto K.;

RA "Assignment of 118 novel cDNAs of cynomolgus monkey brain to human chromosomes."

RT Gene 275:31-37(2001).

RL RN

RP SEQUENCE FROM N.A.

RC TISSUE=Frontal lobe left; PRT; 125 AA.

AC Hidamoto K., Osada N., Hida M., Kubuda J., Sugano S.;

RA Submitted (OCT-2002) to the EMBL/GenBank/DBJU databases.

RA MEDLINE=145851; PubMed=11574149; DOI=10.1016/S0378-1119(01)00665-5;

RA Osada N., Hida M., Kubuda J., Tanuma R., Iseki K., Hirata M., Suto Y.,

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RA MEDLINE=145851; PubMed=11574149; DOI=10.1016/S0378-1119(01)00665-5;

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RA "Assignment of 118 novel cDNAs of cynomolgus monkey brain to human chromosomes."

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RA Osada N., Hida M., Kubuda J., Tanuma R., Iseki K., Hirata M., Suto Y.,

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RA "Assignment of 118 novel cDNAs of cynomolgus monkey brain to human chromosomes."

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RA Osada N., Hida M., Kubuda J., Tanuma R., Iseki K., Hirata M., Suto Y.,

RA Hirai M., Terao K., Suzuki Y., Sugano S., Hashimoto K.;

RA "Assignment of 118 novel cDNAs of cynomolgus monkey brain to human chromosomes."

CC	nucleus, subthalamic nucleus and thalamus. Also detected in fetal brain, lung and kidney. Isoform 2 is expressed in fetal brain
CC	fetal lung, fetal kidney, caudate nucleus, testis and cancer cell lines.
CC	- SIMILARITY: Belongs to the Wnt family.
CC	- SIGNAL: Developmental protein; Glycoprotein; Signal; Wnt signaling pathway
CC	Potential?
FT	Wnt-2b protein.
FT	CHAIN ?
FT	389 N-linked (GlyNAc . .) (Potential).
FT	115 115 N-linked (GlyNAc . .) (Potential).
FT	281 281 N-linked (GlyNAc . .) (Potential).
FT	313 313 S -> A (in Ref. 2)
FT	CONFICT 313 S -> A (in Ref. 2)
SQ	SEQUENCE 389 AA; 43769 MW; DB8B6BB8CCC14FD CRC64;
Query Match	62 4%; Score 78; DB 1; Length 389;
Best Local Similarity	54.5%; Pred. No. 0.0022; Indels 0; Gaps 0;
Matches 12;	Conservative 6; Mismatches 4; Indels 0; Gaps 0;
Qy	1 REAIRCENKEPERNCSSRD 22
Db	99 REWIRECQHQFHRHRNCTTLD 120
RESULT 7	WNT2B_HUMAN STANDARD; PRT; 391 AA.
ID	WN2B_HUMAN Q93097; Q9HDC1; Q9HD2C;
AC	Q93097_1997 (Rel. 35, Created)
DD	16-OCT-2001 (Rel. 40, Last sequence update)
DT	05-JUL-2004 (Rel. 44, Last annotation update)
DE	Wnt-2b protein precursor (Wnt-13).
GN	Name=WNT2B; Synonyms=WNT13;
OS	Homo sapiens (Human); Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Primates; Catarrhini; Hominidae; Homo.
OC	Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX	[1]
RP	SEQUENCE FROM N.A. (ISOFORM 1). MEDLINE=96338637; PubMed=8761309;
RX	Katoch M., Hirai M., Sugimura T., Terada M.; "Cloning, expression and chromosomal localization of Wnt-13, a novel member of the Wnt gene family"; RT RN Oogene 13:873-976 (1996).
RX	SEQUENCE FROM N.A. (ISOFORMS 1 AND 2). MEDLINE=20403898; PubMed=10944466; DOI=10.1006/bbrc.2000.3252;
RX	Katoch M., Kirikoshi H., Satoh T., Sagara N., Koike J.; "Alternative splicing of the Wnt-2B/Wnt-13 gene"; RT RN Biochem. Biophys. Res. Commun. 275:29-216 (2000).
RX	SEQUENCE OF 243-359 FROM N.A. MEDLINE=98110581; PubMed=9411749; DOI=10.1006/geno.1997.5041; Bergstein I., Eisenberg L.M., Bhalero J., Jenkins N.A., Copeland N.G., Osborne M.P., Bowcock A.M., Brown A.M.C.; "Isolation of two novel WNT genes, WNT14 and WNT15, one of which (WNT15) is closely linked to WNT3 on human chromosome 17q21."; RT Genomics 46:450-458 (1997).
RX	-1- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors. Probable developmental protein. May be a signaling molecule which affects the development of discrete regions of tissues. Is likely to signal over only few cell diameters. May be involved in normal development or differentiation as well as in carcinogenesis. -1- SUBCELLULAR LOCATION: Possibly secreted and associates with the extracellular matrix. -1- ALTERNATIVE PRODUCTS: Event=Alternative splicing; Named isoforms=2; Name=?; IsoId=Q9J097-1; Sequence=Displayed;
CC	CC Name=?; IsoId=Q9J097-1; Sequence=VSP 006794; CC Name=?; IsoId=Q9J097-2; Sequence=VSP 006794; CC - TISSUE SPECIFICITY: Isoform 1 is expressed in adult heart, brain, placenta, lung, prostate, testis, ovary, small intestine and colon. In the adult brain, it is mainly found in the caudate nucleus, subthalamic nucleus and thalamus. Also detected in fetal brain, lung and kidney. Isoform 2 is expressed in fetal brain, fetal lung, fetal kidney, caudate nucleus, testis and cancer cell lines.
CC	- SIMILARITY: Belongs to the Wnt family.
CC	This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/ or send an email to license@isb-sib.ch).
CC	DR EMBL; 271621; CAA96283.1; -.
CC	DR EMBL; AB045116; BAB11984.1; -.
CC	DR EMBL; AB045117; BAB11985.1; -.
CC	DR EMBL; AF028701; AAC39552.1; -.
CC	DR Genew; HGNC:12781; WNT2B.
CC	DR GO; GO:0005615; C:extracellular space; TAS.
CC	DR GO; GO:0009553; P:morphogenesis; TAS.
CC	DR InterPro; IPR05817; Wnt.
CC	DR InterPro; IPR09140; Wnt2.
CC	DR InterPro; IPR005816; Wnt_gtrthfactor.
CC	DR Pfam; PF00110; wnt_1.
CC	DR PRINTS; PRO1842; WNT2PROTEIN.
CC	DR PRINTS; PRO1349; WNT2PROTEIN.
CC	DR SMART; SM00097; WNT1; 1.
CC	DR PROSITE; PS00246; WNT1; 1.
KW	Alternative splicing; Developmental protein; Glycoprotein; Signal; Wnt signaling pathway.
KW	Potential.
FT	SIGNAL 1 ?
FT	Wnt-2b protein.
FT	CHAIN 2 391 N-lined (GLNAC . .) (Potential).
FT	CAREOHYD 117 N-lined (GLNAC . .) (Potential).
FT	CAREOHYD 283 283 MURPGDAEAAOLPLRASAPVVPSPAPDGGRASARQLGL
FT	VARSPLIC 1 61 ACILLLILITIPARVDISWW -> MLIDSGIVAYAISIRQLQIQL
FT	FT/FUDL-VSP 006794.
FT	FT CONFLICT 151 151 V -> I (in Ref. 1).
FT	FT CONFLICT 182 182 D -> T (in Ref. 1).
FT	FT CONFLICT 233 233 L -> V (in Ref. 1).
FT	FT CONFLICT 287 287 A -> T (in Ref. 3).
FT	FT CONFLICT 297 297 T -> S (in Ref. 1).
SQ	SEQUENCE 391 AA; 43770 MW; BD7BB7F795FB31 CRC64;
Query Match	62 4%; Score 78; DB 1; Length 391;
Matchers 12;	Base Local Similarity 54.5%; Score 78; DB 1; Length 391; Conservative 6; Mismatches 4; Indels 0; Gaps 0;
Qy	1 REAIRCENKEPERNCSSRD 22
Db	101 REWIRECQHQFHRHRNCTTLD 122
RESULT 8	WNT6_MOUSE STANDARD; PRT; 364 AA.
ID	WNT6_MOUSE ID P22727; AC 01-AUG-1991 (Rel. 19, Created)
CC	CC DT 01-AUG-1991 (Rel. 19, Last sequence update)
CC	CC DT 05-JUL-2004 (Rel. 44, Last annotation update)
CC	CC DE Wnt-6 protein precursor.
CC	CC GN Name=Wnt6; Synonyms=Wnt-6; OS Mus musculus (Mouse)
CC	CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murine; Mus. NCBI_TaxID=0090;
CC	CC Name=?; IsoId=Q9J097-1; Sequence=Displayed;
CC	CC - TISSUE SPECIFICITY: Isoform 1 is expressed in adult heart, brain, placenta, lung, prostate, testis, ovary, small intestine and colon. In the adult brain, it is mainly found in the caudate nucleus, subthalamic nucleus and thalamus. Also detected in fetal brain, fetal lung, fetal kidney, caudate nucleus, testis and cancer cell lines.
CC	CC - SIMILARITY: Belongs to the Wnt family.
CC	CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/ or send an email to license@isb-sib.ch).
CC	CC DR EMBL; 271621; CAA96283.1; -.
CC	CC DR EMBL; AB045116; BAB11984.1; -.
CC	CC DR EMBL; AB045117; BAB11985.1; -.
CC	CC DR EMBL; AF028701; AAC39552.1; -.
CC	CC DR Genew; HGNC:12781; WNT2B.
CC	CC DR GO; GO:0005615; C:extracellular space; TAS.
CC	CC DR GO; GO:0009553; P:morphogenesis; TAS.
CC	CC DR InterPro; IPR05817; Wnt.
CC	CC DR InterPro; IPR09140; Wnt2.
CC	CC DR InterPro; IPR005816; Wnt_gtrthfactor.
CC	CC DR Pfam; PF00110; wnt_1.
CC	CC DR PRINTS; PRO1842; WNT2PROTEIN.
CC	CC PRINTS; PRO1349; WNT2PROTEIN.
CC	CC SMART; SM00097; WNT1; 1.
CC	CC PROSITE; PS00246; WNT1; 1.
KW	Alternative splicing; Developmental protein; Glycoprotein; Signal; Wnt signaling pathway.
KW	Potential.
FT	SIGNAL 1 ?
FT	Wnt-2b protein.
FT	CHAIN 2 391 N-lined (GLNAC . .) (Potential).
FT	CAREOHYD 117 N-lined (GLNAC . .) (Potential).
FT	CAREOHYD 283 283 MURPGDAEAAOLPLRASAPVVPSPAPDGGRASARQLGL
FT	VARSPLIC 1 61 ACILLLILITIPARVDISWW -> MLIDSGIVAYAISIRQLQIQL
FT	FT/FUDL-VSP 006794.
FT	FT CONFLICT 151 151 V -> I (in Ref. 1).
FT	FT CONFLICT 182 182 D -> T (in Ref. 1).
FT	FT CONFLICT 233 233 L -> V (in Ref. 1).
FT	FT CONFLICT 287 287 A -> T (in Ref. 3).
FT	FT CONFLICT 297 297 T -> S (in Ref. 1).
SQ	SEQUENCE 391 AA; 43770 MW; BD7BB7F795FB31 CRC64;
Query Match	62 4%; Score 78; DB 1; Length 391;
Matchers 12;	Base Local Similarity 54.5%; Score 78; DB 1; Length 391; Conservative 6; Mismatches 4; Indels 0; Gaps 0;
Qy	1 REAIRCENKEPERNCSSRD 22
Db	101 REWIRECQHQFHRHRNCTTLD 122
RESULT 9	WNT6_MOUSE STANDARD; PRT; 364 AA.
ID	WNT6_MOUSE ID P22727; AC 01-AUG-1991 (Rel. 19, Created)
CC	CC DT 01-AUG-1991 (Rel. 19, Last sequence update)
CC	CC DT 05-JUL-2004 (Rel. 44, Last annotation update)
CC	CC DE Wnt-6 protein precursor.
CC	CC GN Name=Wnt6; Synonyms=Wnt-6; OS Mus musculus (Mouse)
CC	CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murine; Mus. NCBI_TaxID=0090;
CC	CC Name=?; IsoId=Q9J097-1; Sequence=Displayed;
CC	CC - TISSUE SPECIFICITY: Isoform 1 is expressed in adult heart, brain, placenta, lung, prostate, testis, ovary, small intestine and colon. In the adult brain, it is mainly found in the caudate nucleus, subthalamic nucleus and thalamus. Also detected in fetal brain, fetal lung, fetal kidney, caudate nucleus, testis and cancer cell lines.
CC	CC - SIMILARITY: Belongs to the Wnt family.
CC	CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/ or send an email to license@isb-sib.ch).
CC	CC DR EMBL; 271621; CAA96283.1; -.
CC	CC DR EMBL; AB045116; BAB11984.1; -.
CC	CC DR EMBL; AB045117; BAB11985.1; -.
CC	CC DR EMBL; AF028701; AAC39552.1; -.
CC	CC DR Genew; HGNC:12781; WNT2B.
CC	CC DR GO; GO:0005615; C:extracellular space; TAS.
CC	CC DR GO; GO:0009553; P:morphogenesis; TAS.
CC	CC DR InterPro; IPR05817; Wnt.
CC	CC DR InterPro; IPR09140; Wnt2.
CC	CC DR InterPro; IPR005816; Wnt_gtrthfactor.
CC	CC DR Pfam; PF00110; wnt_1.
CC	CC DR PRINTS; PRO1842; WNT2PROTEIN.
CC	CC PRINTS; PRO1349; WNT2PROTEIN.
CC	CC SMART; SM00097; WNT1; 1.
CC	CC PROSITE; PS00246; WNT1; 1.
KW	Alternative splicing; Developmental protein; Glycoprotein; Signal; Wnt signaling pathway.
KW	Potential.
FT	SIGNAL 1 ?
FT	Wnt-2b protein.
FT	CHAIN 2 391 N-lined (GLNAC . .) (Potential).
FT	CAREOHYD 117 N-lined (GLNAC . .) (Potential).
FT	CAREOHYD 283 283 MURPGDAEAAOLPLRASAPVVPSPAPDGGRASARQLGL
FT	VARSPLIC 1 61 ACILLLILITIPARVDISWW -> MLIDSGIVAYAISIRQLQIQL
FT	FT/FUDL-VSP 006794.
FT	FT CONFLICT 151 151 V -> I (in Ref. 1).
FT	FT CONFLICT 182 182 D -> T (in Ref. 1).
FT	FT CONFLICT 233 233 L -> V (in Ref. 1).
FT	FT CONFLICT 287 287 A -> T (in Ref. 3).
FT	FT CONFLICT 297 297 T -> S (in Ref. 1).
SQ	SEQUENCE 391 AA; 43770 MW; BD7BB7F795FB31 CRC64;
Query Match	62 4%; Score 78; DB 1; Length 391;
Matchers 12;	Base Local Similarity 54.5%; Score 78; DB 1; Length 391; Conservative 6; Mismatches 4; Indels 0; Gaps 0;
Qy	1 REAIRCENKEPERNCSSRD 22
Db	101 REWIRECQHQFHRHRNCTTLD 122
RESULT 10	WNT6_MOUSE STANDARD; PRT; 364 AA.
ID	WNT6_MOUSE ID P22727; AC 01-AUG-1991 (Rel. 19, Created)
CC	CC DT 01-AUG-1991 (Rel. 19, Last sequence update)
CC	CC DT 05-JUL-2004 (Rel. 44, Last annotation update)
CC	CC DE Wnt-6 protein precursor.
CC	CC GN Name=Wnt6; Synonyms=Wnt-6; OS Mus musculus (Mouse)
CC	CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murine; Mus. NCBI_TaxID=0090;
CC	CC Name=?; IsoId=Q9J097-1; Sequence=Displayed;
CC	CC - TISSUE SPECIFICITY: Isoform 1 is expressed in adult heart, brain, placenta, lung, prostate, testis, ovary, small intestine and colon. In the adult brain, it is mainly found in the caudate nucleus, subthalamic nucleus and thalamus. Also detected in fetal brain, fetal lung, fetal kidney, caudate nucleus, testis and cancer cell lines.
CC	CC - SIMILARITY: Belongs to the Wnt family.
CC	CC This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/ or send an email to license@isb-sib.ch).
CC	CC DR EMBL; 271621; CAA96283.1; -.
CC	CC DR EMBL; AB045116; BAB11984.1; -.
CC	CC DR EMBL; AB045117; BAB11985.1; -.
CC	CC DR EMBL; AF028701; AAC39552.1; -.
CC	CC DR Genew; HGNC:12781; WNT2B.
CC	CC DR GO; GO:0005615; C:extracellular space; TAS.
CC	CC DR GO; GO:0009553; P:morphogenesis; TAS.
CC	CC DR InterPro; IPR05817; Wnt.
CC	CC DR InterPro; IPR09140; Wnt2.
CC	CC DR InterPro; IPR005816; Wnt_gtrthfactor.
CC	CC DR Pfam; PF00110; wnt_1.
CC	CC DR PRINTS; PRO1842; WNT2PROTEIN.
CC	CC PRINTS; PRO1349; WNT2PROTEIN.
CC	CC SMART; SM00097; WNT1; 1.
CC	CC PROSITE; PS00246; WNT1; 1.
KW	Alternative splicing; Developmental protein; Glycoprotein; Signal; Wnt signaling pathway.
KW	Potential.
FT	SIGNAL 1 ?
FT	Wnt-2b protein.
FT	CHAIN 2 391 N-lined (GLNAC . .) (Potential).
FT	CAREOHYD 117 N-lined (GLNAC . .) (Potential).
FT	CAREOHYD 283 283 MURPGDAEAAOLPLRASAPVVPSPAPDGGRASARQLGL
FT	VARSPLIC 1 61 ACILLLILITIPARVDISWW -> MLIDSGIVAYAISIRQLQIQL
FT	FT/FUDL-VSP 006794.
FT	FT CONFLICT 151 151 V -> I (in Ref. 1).
FT	FT CONFLICT 182 182 D -> T (in Ref. 1).
FT	FT CONFLICT 233 233 L -> V (in Ref. 1).
FT	FT CONFLICT 287 287 A -> T (in Ref. 3).
FT	FT CONFLICT 297 297 T -> S (in Ref. 1).
SQ	SEQUENCE 391 AA; 43770 MW; BD7BB7F795FB31 CRC64;
Query Match	62 4%; Score 78; DB 1; Length 391;
Matchers 12;	Base Local Similarity 54.5%; Score 78; DB 1; Length 391; Conservative 6; Mismatches 4; Indels 0; Gaps 0;
Qy	1 REAIRCENKEPERNCSSRD 22
Db	101 REWIRECQHQFHRHRNCTTLD 122

"Expression of multiple novel Wnt-1/int-1-related genes during fetal and adult mouse development.";
 RT Genes Dev. 4:2319-2322(1990).
 RL -1- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors. Probable developmental protein. May be a signaling molecule which affects the development of discrete regions of tissues. Is likely to signal over only few cell diameters.
 CC -1- SUBCELLULAR LOCATION: Possibly secreted and associates with the extracellular matrix.
 CC -1- SIMILARITY: Belongs to the Wnt family.

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 CC DR EMBL; M89800; AAA40569.1; -.
 CC DR PIR; F36470; F16470.
 CC DR MGD; MGI:38960; Wnt6.
 CC DR InterPro; IPR005817; Wnt.
 CC DR InterPro; IPR009143; Wnt6.
 CC DR InterPro; IPR005816; Wnt_grtfactor.
 CC DR Pfam; PF00110; wnt; 1.
 CC DR PRINTS; PRO1845; WNT6PROTEIN.
 CC DR PRINTS; PRO1349; WNT6PROTEIN.
 CC DR SMART; SM00097; WNT1; 1.
 CC DR PROSITE; PS00246; WNT1; 1.
 KW DEVELOPMENTAL protein; Glycoprotein; Signal; Wnt signaling pathway.
 PT SIGNAL 1 23 Potential.
 FT CHAIN 24 364 Wnt-6 protein.
 FT CARBOHYD 85 95 N-linked (GlcNAc . .) (Potential).
 FT CARBOHYD 310 310 N-linked (GlcNAc . .) (Potential).
 SQ SEQUENCE 364 AA; 39586 MW; 6F238B1929910AC CRC64;
 Qy Query Match 61.6%; Score 77; DB 1; Length 364;
 Best Local Similarity 60.0%; Pred. No. 0.0029; Gaps 0;
 Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
 Qy 1 REAIRECENKPKFERWNCSS 20
 Db 69 RLGVRRECQFRFRWNCCS 88

RESULT 9

Q80ZN9

ID Q80ZN9 PRELIMINARY; PRT; 364 AA.

AC Q80ZN9;

DT 01-JUN-2003 (TREMBrel. 24, Created)

DT 01-JUN-2003 (TREMBrel. 24, Last sequence update)

DT 01-MAR-2004 (TREMBrel. 26, Last annotation update)

DB Name-Wnt5;

OS Mus musculus (Mouse).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

OX NCBI_TaxID=10090;

RN SEQUENCE FROM N.A.

RC TISSUE=Limb;

RX MEDLINE=2238827; PubMed=12477932; DOI=10.1073/pnas.242603999;

RA STRAUBERG R.L., Feingold E.A., Grouse L.H., Desge J.G.,

RA Klaunser R.D., Collins F.S., Wagner L., Shemesh C.M., Schuler G.D.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.P., Bhat N.K.,

RA Hopkins R.P., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Diatchenko L., Marsuska K., Farmer A.A., Rubin G.M., Hong L.,

RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RA Brownstein M.J., Usdin T.B., Yoshiyuki S., Carninci P., Prange C.,

RA Raha S.S., Loquai N.A., Peters G.J., Abramson R.D., Millahy S.J.,

RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalon D.K., Muzny D.M., Sodergran E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Helton E., Ketteman M., Madan A., Rodriguez S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
 RA Krzywinski M.J., Skalska U., Smailus D.B., Schnerr A., Schain J.E.,
 RA Jones S.J., Marrs M.A.; "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences";
 RT Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
 RL [12]
 RN RP SEQUENCE FROM N.A.
 RC TISSUE=Limb;
 RA Strauberg R.; Submitted (MAR-2003) to the EMBL/GenBank/DBJ databases.
 RL -1- FUNCTION: Ligand for members of the frizzled family of seven
 CC transmembrane receptors (By similarity).
 CC -1- SUBCELLULAR LOCATION: Possibly secreted and associates with the
 CC extracellular matrix (By similarity).
 CC -1- SIMILARITY: Belongs to the Wnt family.
 DR EMBL; BC048700; AAH48700; 1; -.
 DR MGD; MGI:198960; Wnt6.
 DR GO; GO:0005615; C:extracellular space; TAS.
 DR GO; GO:0005515; F:protein binding; IPI.
 DR GO; GO:0005102; P:receptor binding; TAS.
 DR GO; GO:0007267; P:cell-cell signaling; TAS.
 DR GO; GO:0009887; P:organogenesis; TAS.
 DR InterPro; IPR005817; Wnt.
 DR InterPro; IPR009143; Wnt6.
 DR InterPro; IPR005816; Wnt_grtfactor.
 DR Pfam; PF00110; wnt; 1.
 DR PRINTS; PR01845; WNT6PROTEIN.
 DR PRINTS; PR01349; WNTPROTEIN.
 DR SMART; SM00097; WNT1; 1.
 DR PROSITE; PS00246; WNT1; 1.
 DR KW Developmental protein; Wnt; signalling pathway.
 SQ SEQUENCE 364 AA; 3965 MW; 6F28CE11F98A0AC CRC64;
 DR Query Match 61.6%; Score 77; DB 2; Length 364;
 DR Best Local Similarity 60.0%; Pred. No. 0.0029; Gaps 0;
 DR Matches 12; Conservative 4; Mismatches 4; Indels 0; Gaps 0;
 DR Qy 1 REAIRECENKPKFERWNCSS 20
 DR Db 69 RLGVRRECQFRFRWNCCS 88

RESULT 10
 WNT6 HUMAN STANDARD; PRT; 365 AA.
 ID WNT6_HUMAN ID Q9Y659; Q9H1U6; Q9H238;
 AC AC 16-OCT-2001 (Rel. 40, Created)
 DT DT 16-OCT-2001 (Rel. 40, Last sequence update)
 DT DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE DE Wnt-6 protein precursor.
 GN GN Name-WNT6;
 OC OC Homo sapiens (Human).
 OC OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 OC OC [1] _
 RN RP SEQUENCE FROM N.A.
 RA Testa T.T., Moszakowska D.B., Carter P.S., Hu E., Zhu Y.,
 RA Kellogg D.P., Murdock P.R., Herrity N.C., Lewis C.J., Cross D.A.,
 RA Kellogg D.P., Murdock P.R., Herrity N.C., Lewis C.J., Cross D.A.,
 RA Culbert A.A., Reith A.D., Barnes M.R.;
 RA "Molecular cloning and characterization of six novel human WNT
 RT Genes.";
 RA Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.
 RL [2]
 RN RP SEQUENCE FROM N.A.
 RX MEDLINE=21248387; PubMed=11350055; DOI=10.1006/bbrc.2001.4855;

RA Kirikoshi H., Sekihara H., Katch M.; "WNT10A and WNT6, clustered in human chromosome 2q35 region with head-to-tail manner, are strongly co-expressed in SW480 cells.";
 RT Biochem. Biophys. Res. Commun. 283;798-805 (2001).
 RL [3]

SEQUENCE FROM N.A.

RC TISSUE=Placenta;

RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;

RA Straubhaar R.D., Feingold E.A., Grouse I.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shemesh C.M., Schuler G.D., Altszuler S.F., Zeeberg B., Bustow K.H., Bhatia N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., Diatchenko L., Mariusina K., Farmer A.A., Rubin G.M., Hong J., Stapleton M., Soares M.B., Bonaldo M.P., Casavant T.L., Scheetz T.E., Brancatini M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loquellano N.A., Peters G.J., Abramson D., Mullahy S.J., Bosak S.A., McElwain P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Whiting M., Madan A., Helton E., Kettman J., Madan A., Rodriguez S., Sanchez A., Blakesley R.W., Touchman J.W., Green B.D., Dickson M.C., Rodriguez A.C., Grinwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnarch A., Schein J.B., Jones S.J.M., Mirra M.A.; "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences";
 RT Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
 RL [4]

SEQUENCE OF 28-365 FROM N.A.

RA Rump A., Hayes C., Brown S.D.M., Rosenthal A.; "Genomic sequence of the Wnt6 gene and the Wnt10a gene from human 2q35.";
 RL Submitted (OCT-2000) to the EMBL/GenBank/DDBJ databases.
 RN [5]

SEQUENCE OF 295-337 FROM N.A.

RX MEDLINE=99276447; PubMed=10343101;

RA Rankin J., Strachan T., Lake M., Lindsay S.; "Partial cloning and assignment of WNT6 to human chromosome band 2q35 by in situ hybridization";
 RT Cytogenet. Cell Genet. 84:50-52(1999).
 CC -I- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors. Probable developmental protein. May be a signaling molecule which affects the development of discrete regions of tissues. Is likely to signal over only few cell diameters.
 CC -I- SUBCELLULAR LOCATION: Possibly secreted and associates with the extracellular matrix.
 CC -I- SIMILARITY: Belongs to the Wnt family.

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CC DR AY009401; AAC38661.1;
 DR EMBL; AB059570; BAB55603.1;
 DR EMBL; BC004329; AAH04329.1;
 DR EMBL; AF315943; AAG45154.1;
 DR EMBL; AF079522; AAD41674.1;
 DR PIR: JC7694; JC7694.
 DR Genbank; HGNC:12785; WNT6.
 DR NM_604663; -;
 DR GO:0005576; C: extracellular; NAS.
 DR GO; GO:0005201; P: extracellular matrix; structural constituent; NAS.
 DR GO; GO:0007267; P: cell-cell signaling;
 DR GO; GO:0007275; P: development; NAS.
 DR InterPro; IPR005817; Wnt.
 DR InterPro; IPR009433; Wnt6.
 DR InterPro; IPR005816; Wnt_grtfactor.

DR Pfam; PF00110; wnt; 1.
 DR PRINTS; PR01845; WNT6PROTEIN.
 DR SMART; SM00097; WNT1; 1.
 DR PROSTB; PS00446; WNT1; 1.
 KW Developmental protein; Glycoprotein; Signal; Wnt signaling pathway.
 FT SIGNAL; 1 24 Potential.
 FT CHAIN; 25 365 Wnt-6 protein.
 FT CARBOHYD; 86 86 N-linked (GlcNAc. . .) (Potential).
 FT CARBOHYD; 311 311 N-linked (GlcNAc. . .) (Potential).
 SQ SEQUENCE 365 AA; 39720 MW; 928DB39C658E295B CRC64;
 Query Match 61.6%; Score 77; DB 1; Length 365;
 Best Local Similarity 60.0%; Pred. No. 0.0029; 4; Mismatches 0; Indels 0; Gaps 0;
 Matches 12; Conservative 4; Mismatches 4; Indels 0;
 Qy 1 REAIRCENKEKFERWNCS 20
 Db 70 RLGVRECOQFQFRWNCS 89
 RESULT 11
 ID QBN255 PRELIMINARY; PRT; 365 AA.
 ID QBN255; PRELIMINARY; PRT;
 RA Ota T., Nishikawa T., Suzuki Y., Kawai-Hio Y., Hayashi K., Ishii S., RA Saito K., Yamamoto J., Wakamatsu A., Nagai T., Nakamura Y., RA Nagai K., Sugano S., Isogai T.;
 RL Submitted (MAR 2002) to the EMBL/GenBank/DDBJ databases.
 CC -I- FUNCTION: Ligand for members of the frizzled family of seven transmembrane receptors (By similarity).
 CC -I- SUBCELLULAR LOCATION: Possibly secreted and associates with the extracellular matrix (By similarity).
 CC -I- SIMILARITY: Belongs to the Wnt family.
 DR EMBL; AK075522; BAC11668.1; -.
 DR GO; GO:0005576; C: extracellular; IEA.
 DR GO; GO:0004871; P: signal transducer activity; IEA.
 DR GO; GO:0007223; P: frizzled-2 signaling pathway; IEA.
 DR InterPro; IPR05817; Wnt.
 DR InterPro; IPR00943; Wnt6.
 DR InterPro; IPR05816; Wnt_grtfactor.
 DR Pfam; PF00110; wnt; 1.
 DR PRINTS; PR01845; WNT6PROTEIN.
 DR SMART; SM00097; WNT1; 1.
 DR PROSTB; PS00246; WNT1; 1.
 KW Developmental protein; Wnt signaling pathway.
 SQ SEQUENCE 365 AA; 39850 MW; 865EA87BD1C5CB5 CRC64;
 Query Match 61.6%; Score 77; DB 2; Length 365;
 Best Local Similarity 60.0%; Pred. No. 0.0029; 4; Mismatches 0; Indels 0;
 Matches 12; Conservative 4; Mismatches 4; Indels 0;
 Qy 1 REAIRCENKEKFERWNCS 20
 Db 70 RLGVRECOQFQFRWNCS 89
 RESULT 12
 ID_WNT1_BOMMO STANDARD; PRT; 392 AA.

PRINTS; PRO1842; WNT2PROTEIN.
 DR SMART; P01349; WNT2PROTEIN.
 DR SMART; SM00097; WNT1; 1.
 DR PROSITE; PS00216; WNT1; 1.
 DR DEVELOPMENTAL protein; Wnt signaling pathway.
 KW SEQUENCE; 385 AA; 4292 MW; FE3204C00A3E6F5 CRC64;
 Query Match 60.95%; Score 75; DB 2; Length 385;
 Best Local Similarity 54.5%; Pred. No. 0.0062; Indels 0; Gaps 0;
 Matches 12; Conservative 5; Mismatches 5; Indels 0; Gaps 0;
 Qy 1 REAIRECENKEFKERWNCSRD 22
 Db 95 KEWIRECQYQPRHHRWNCSTLD 116

RESULT 15
 WN5C_XENLA
 ID WN5C_XENLA STANDARD; PRT; 360 AA.
 AC P33945; Q91928;
 DT 01-FEB-1994 (Rel. 28, Created)
 DT 01-FEB-1994 (Rel. 28, Last sequence update)
 DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE Wnt-5C protein precursor (XWnt-5C).
 GN Name=WNT-5C;
 OS Xenopus laevis (African clawed frog).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Amphibia; Batrachia; Anura; Meobatrachia; Pipoidea; Pipidae;
 Xenopodinae; Xenopus.
 NCBI_TaxID=8355;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Koster J.G., Kuiken G.A., Stegeman B., Peterson J., Elizema K.,
 RA Stabel L., Dekker E.J., Destre O.H.J.;
 RL Submitted (JUN-1993) to the EMBL/GenBank/DBJ databases.
 RN [2]
 RP SEQUENCE OF 1-27 FROM N.A.
 RX TISSUE=Embryo;
 RX MEDLINE=942261437; PubMed=8202371;
 RA Kuiken G.A., Bertens P.J.A., Peterson-Maduro J., Veenstra G.J.C.,
 RA Koster J.G., Destre O.H.J.;
 RT "The promoter of the Xwnt-5C gene contains octamer and AP-2 motifs
 functional in Xenopus embryos.";
 RT Nucleic Acids Res. 22:1675-1680(1994).
 CC -!- FUNCTION: Ligand for members of the frizzled family of seven
 CC transmembrane receptors. Probable developmental protein. May be a
 CC signaling molecule which affects the development of discrete
 CC regions of tissues. Is likely to signal over only few cell
 CC diameters.
 CC -!- SUBCELLULAR LOCATION: Possibly secreted and associates with the
 CC extracellular matrix.
 CC -!- DEVELOPMENTAL STAGE: Expression in the early gastrula stage
 CC onwards.
 CC -!- SIMILARITY: Belongs to the Wnt family.

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DR EMBL; X733510; CAA51916.1; -.
 DR EMBL; X76190; CRA53784.1; -.
 DR PIR; S34173; S34173.
 DR InterPro; IPR005817; Wnt.
 DR InterPro; IPR005816; Wnt_grtfactor.
 DR Pfam; PF00310; wnt_1.
 DR PRINTS; PRO1349; WNT2PROTEIN.
 DR SMART; SM00097; WNT1; 1.
 DR PROSITE; PS00216; WNT1; 1.
 DR Developmental protein; Extracellular matrix; Glycoprotein; Signal;